# 8. MISSISSIPPI RIVER

(1) This chapter describes the Mississippi River from the delta passes at the Gulf of Mexico to Baton Rouge, 217 miles via Southwest Pass, 211 miles via South Pass, above the Gulf. Also described are the deepwater ports of New Orleans and Baton Rouge, as well as the facilities at the many small communities along the river.

(2) **Note**: All mileage distances given in this chapter are in statute miles unless otherwise indicated. Historically, distances on the Mississippi River are in statute miles, referred to an origin at the Head of Passes. Distances in this system are suffixed AHP (i.e., above Head of Passes).

(3) **COLREGS Demarcation Lines.**–The lines established for this part of the coast are described in **80.820 and 80.825**, chapter 2.

(4) **Charts 11360, 11340, 11366**–**Mississippi River** empties into the N central part of the Gulf of Mexico through a number of mouths or passes which, taken together, form the delta of the river. The river and its tributaries form the largest network of navigable waters in the world. The two principal passes, South Pass and Southwest Pass, are about 1,600 nautical miles from New York, 500 nautical miles from Key West, 300 nautical miles E of Galveston, and 440 nautical miles E of Corpus Christi. The river is the access to the Ports of New Orleans and Baton Rouge, and the numerous cities in the central part of the United States located in the Mississippi River Valley and along its tributaries, the Ohio, Missouri, Red, Tennessee, and other rivers flowing into it. From the mouth, at the entrance to Southwest Pass, it is about 1,840 miles to Minneapolis, 1,960 miles to Pittsburgh, 1,680 miles to Knoxville, and 1,530 miles to Chicago via the Illinois Waterway. (See the publication "Distances Between United States Ports" for more detailed information.)

(5) New Orleans can also be reached by the more direct deep-draft route through the Mississippi River-Gulf Outlet Canal, about 30 miles N of South Pass. The outlet canal extends from deepwater in the Gulf to the junction with the Inner Harbor Navigation Canal at New Orleans.

(6) The shape of the delta is somewhat like the foot of a bird, with its four toelike extensions protruding into the Gulf. The passes consist of narrow-banked deposits of sand and clay brought down by the river current which continuously adds them to the seaward margins of the delta. In this manner the delta is being built seaward at an estimated average rate of 300 feet a year. Numerous bays between the passes are changing through wave and tidal action and filling up with the immense amounts of material carried down by the river. The upper half of **Garden Island Bay** has been filled in so that now it is a marsh.

(7) **Prominent features.–**The most conspicuous objects, when approaching the passes, are the lights, which are easily recognized. **Southwest Pass Entrance Light** (28°54'18"N., 89°25'42"W.), 85 feet above the water is shown from a tower on a white dwelling on piles near the end of the E jetty. A racon and a fog signal are at the light. **Southwest Pass East Jetty End Light 4** (chart 11361), 50 feet above the water, is shown from a red skeleton tower on piles with a red triangular daymark. A fog signal is at the light. A lighted buoy (Sea Buoy) is 1.6 miles S of the E jetty.

(8) **South Pass Light** (29°00'54"N., 89°10'00"W.), 108 feet above the water, is shown from a skeleton tower painted white below the gallery and black above. The light is located on the W side of the pass about 2.2 miles from the outer end of the jetties. A fog signal is at South Pass West Jetty Light, near the outer end of the W jetty at the mouth of the pass. This light serves as South Pass Range Front Light. A lighted bell buoy (Sea Buoy) is 1.5 miles SE of the jetty light.

(9) The numerous oil well structures in **East Bay,** some of which extend about 3 miles SE of a line between the jetties at South and Southwest Passes, are also prominent. (See chart 11361.)

(10) **Anchorages**.–**Vessels should anchor in the South Pass Anchorage, NE of South Pass Light.** (See **166.100 through 166.200**, chapter 2.)

(11) **Mississippi River-Gulf Outlet Approach Lighted Horn Buoy NO** (29°26'24"N., 88°56'48"W.), about 2.5 miles ENE of the entrance to the Mississippi River-Gulf Outlet Canal, is equipped with a racon. The buoy is about 29 miles NNE of South Pass and about 40 miles NE of Southwest Pass.

(12) There are numerous oil well structures in the vicinity of the entrance to the canal, and the dredging ranges for the channel are prominent. (See chart 11363.)

(13) Numerous oil well structures off the entrances to the Mississippi River Delta passes and in East Bay can be seen for some distance offshore. Smoke from burning gas from some of these wells is seen from far offshore.

(14) The discolored water discharge from Mississippi River usually provides mariners with their first indication that they are approaching land. However, this is not a sure indication; during high river stages and with N winds the discolored water will be encountered in some directions 60 miles or more from land, and at times the water will appear broken from 15 to 20 miles from the passes. The land near the entrances to the passes is low marsh covered with tall, coarse grass and weeds.

(15) **COLREGS Demarcation Lines.**–The lines established for the Mississippi River and Mississippi Passes are described in **80.820 and 80.825**, chapter 2.

(16) **Special Notices**.–The Corps of Engineers, New Orleans District, have promulgated the following through navigation bulletins to all interested parties:

(17) **Mississippi River-Gulf Outlet Canal.–**Use of the outlet canal by ships and other commercial and pleasure craft is continuing to increase. The hazards existing to a small-boat operator on this waterway cannot be over emphasized.

(18) It is understood, however, that ships must maintain sufficient headway at all times in order that the vessel can be controlled. Consequently, small-craft operators should approach and pass ships with extreme caution and with one thought in mind, the safety of their own vessel and its occupants.

(19) As a large ship moves in the waterway a wave is pushed ahead. As it comes abreast of a given point a suction effect is created that abruptly drops the water level in the channel and the water is drawn off the banks of the waterway. The violence of the reaction depends on the speed and draft of the ship.

(20) As the ship passes, the displaced water rushes back toward the banks and could possibly capsize or throw a small boat onto the bank. Shortly after the ship has passed, waves cause severe agitation along the banks.

(21) **Pilotage, Mississippi River-Gulf Outlet Canal.–**See Pilotage, Mississippi River (indexed as such) this chapter.

(22) **Locking Procedures for all locks in the New Orleans Engineer District**.–When a sufficient backlog of vessels exists, and water differential and other conditions make such procedure advantageous, a maximum of four successive lockages will be made alternately from each direction. However, should the fourth lockage in either direction be a long tow requiring two lockages, a fifth lockage will be made for the second section of the long tow.

(23) For the successive lockage procedure to be successful and in order to conserve lockage time, radios on vessels must be kept tuned to the lock frequency to receive instructions and move up promptly when called by the lock operator. The lockmaster will coordinate movement and arrangement of tows and other vessels and direct such procedures in the movement and lockings as conditions may warrant in order to obtain maximum and efficient usage of the lock.

(24) **Note**: Special Notices affecting locking procedures in the New Orleans Corps of Engineers District are issued by the Corps as conditions warrant. These special regulations, in addition to those mentioned above and elsewhere in this chapter, announce new, and/or changes to existing regulations. Mariners are advised to contact the local office of the Corps of Engineers to obtain the latest information.

(25) **Shipping Safety Fairways**.–**Vessels should approach the Mississippi River-Gulf Outlet Canal, Southwest Pass and South Pass (Mississippi River) through the prescribed Safety Fairways.** (See **166.100 through 166.200**, chapter 2.)

(26) **Channels**.–The improved ship channels into Mississippi River are through Southwest Pass and South Pass. Several minor passes can be used only by small craft. A Federal project provides for a 45-foot channel over the bar and through Southwest Pass, to Head of Passes. The project is under constant maintenance dredging. The project further provides for a 45-foot channel from Head of Passes to New Orleans, thence 45 feet to Mile 181 above New Orleans, thence 40 feet to Baton Rouge. The channels are well marked. Contact the New Orleans District, Corps of Engineers, for controlling depths. The office is at the foot of Prytania Street, New Orleans; telephone (865-1121). (See appendix for mailing address.)

(27) **Note**.–The Associated Branch Pilots, Port of New Orleans, advised that South Pass has a recommended draft limit of 15 feet. The pilots further advised that a recommended deadweight tonnage limit of 21,000 d.w.t. and/or 15 feet is in effect for ships using South Pass. The deadweight tonnage limit is recommended because ships of large tonnage do not steer well. The tonnage limit is subject to a larger limit as the draft limit deepens.

(28) Southwest Pass has a recommended draft limit of 45 feet. There is no limit on deadweight tonnage for ships using Southwest Pass.

(29) **Mississippi River-Gulf Outlet Canal** (see charts 11363 and 11364) is a 66-mile-long deepwater channel that extends NW from deep water in the Gulf of Mexico to the Inner Harbor Navigation Canal at New Orleans. The Federal project provides for an entrance channel 38 feet deep for 8.3 miles to the entrance to Breton Sound between Grand Gosier Islands and Breton Islands, thence 36 feet deep across Breton Sound NW for 20.3 miles where it enters a landcut, thence 36 feet through the landcut for 32.2 miles where it joins the Gulf Intracoastal Waterway at Mile 13.6E, thence through the waterway for about 5 miles to a turning basin at its junction with the Inner Harbor Navigation Canal at New Orleans. The approach to the landcut is protected by stone retention dikes on both sides of the channel; the NE dike is about 2.6 miles long, and the SW dike is about 5.5 miles long. The channel is well marked with aids. (See Notice to Mariners and latest editions of the charts for controlling depths.)

(30) In 1991, the Associated Branch Pilots, Port of New Orleans, advised that vessels with a fresh water draft greater than 33 feet should not use the Mississippi River-Gulf Outlet Canal due to shoaling in various parts of the channel.

(31) Unpredictable tidal currents may be encountered at places along the Mississippi River-Gulf Outlet Canal. Until such time as surveys are made to determine the actual tidal current conditions, exercise caution when transiting the waterway.

(32) **Bridges.**–There are no bridges across the Mississippi River below New Orleans. An overhead power cable with a clearance of 175 feet crosses the river about 1 mile above the Algiers Lock at about 89 miles AHP. One bridge and two cables cross the Mississippi River-Gulf Outlet Canal below the junction with the Inner Harbor Navigation Canal at New Orleans.

(33) The **Paris Road Bridge (State Route 47)**, about 4.4 miles E of the junction with Inner Harbor Navigation Canal, is a fixed bridge, with a clearance of 138 feet at mean high water (140 feet at mean sea level) for a 500-foot midwidth. Clearance at center of span is 140 feet at mean high water (142 feet at mean sea level). The Louisiana Department of Transportation and Development has installed vertical clearance gauges on the Paris Road Bridge; the clearances posted are for the middle 500-foot channel between the fixed red channel lights on the bridge. Mariners desiring **present** Paris Road Bridge clearances before entering the Mississippi River-Gulf Outlet Canal are advised to seek **competent** local knowledge for water heights and bridge information. The **present** vertical clearance above mean sea level may be determined for the 500-foot midwidth of Paris Road Bridge by using a **present**, **reported**, and **nearby water height**, in feet, **relative** to mean sea level clearance of 140 feet. A positive (higher) water height reading should be subtracted from 140 feet, and a negative (lower) water height reading should be added to 140 feet.

(34) The overhead power cables across the canal, near the Paris Road Bridge, have a minimum clearance of 170 feet. (See **117.1 through 117.59 and 117.459**, chapter 2, for drawbridge regulations for drawbridges over the Mississippi River and its navigable tributaries and outlets.)

(35) **Caution.**–The Coast Guard advises that because of constantly changing river stages mariners should carefully review and validate mast height data to assure adequate clearance under the bridges and overhead cables on the Lower Mississippi River. It is recommended that maximum vessel height be determined for various drafts and trim of the vessel and be kept readily available on the bridge of the vessel. Bridge clearance data for various river stages can be obtained from the Coast Guard.

(36) **Anchorages.–Vessels should anchor in Southwest Pass Anchorage SE of the entrance to Southwest Pass, South Pass Anchorage NE of the entrance to South Pass, or in the Mississippi River-Gulf Outlet Canal Fairway Anchorages E and N of Mississippi River-Gulf Outlet Approach Lighted Horn Buoy NO.** (See **166.100 through 166.200**, chapter 2.)

(37) In heavy weather craft in the vicinity of South Pass seek refuge in the pass, and in emergencies boats may tie up to the Coast Guard wharf at South Pass Light.

(38) Vessels may anchor off South Pass and Southwest Pass as appropriate, weather permitting.

(39) There are numerous designated anchorages on both sides of the river below New Orleans, and temporary anchorages may be prescribed by the Commander, Eighth Coast Guard District and published in the Local Notice to Mariners. (See **110.1 and 110.195**, chapter 2, for anchorage limits and regulations.)

(40) **Caution.**–The Coast Guard advises that during high-water conditions mariners should give anchored vessels a particularly wide berth. Fast river currents may cause anchored vessels to swing in wide arcs. Under these conditions, it is important that the mariner be aware of the location of anchor chains.

(41) **Dangers.–**An area bounded by latitude 28°20'N., to latitude 28°30'N., between longitude 88°50'W., and longitude 89°00'W., has been established as a dumping ground for ammunition and explosives.

(42) A shoal with depths of 8 to 15 feet extends along the W side of the approach channel to Southwest Pass for about a mile beyond the end of the W jetty. The position of this shoal and its depths are rather constant except for changes during and after high-river stages in the spring.

(43) A shoal with depths of 2 to 17 feet extends along the W side of the entrance to South Pass. Vessels should not close the passes before the pilot boards.

(44) **Flocculation,** locally known as **Slush,** is a living mass of jellied material, or muck, deposited in the lower part of the Mississippi, during low stages of the river. It consists of the suspended material which, after being carried downstream by the current, comes into contact with the relatively still salt water which backs into the passes. This muck has been observed to be as much as 10 to 15 feet deep. It remains where deposited until flushed out during high-water stages of the river. Although slowed down by this muck, deep-draft vessels are able to pass through it. Accordingly, and because it will be flushed out during high-water stages, the Corps of Engineers does not consider it necessary to remove the material during low stages.

(45) **Sand waves,** the material brought down during high stages, on the contrary, is of a sandy nature such that, if not removed, builds up bars and reduces controlling depths. These sand bars or waves are dredged out during high stages.

(46) **Mud lumps** are the small oval-shaped mounds or islands no more than 8 feet high which are peculiar to the Mississippi River delta. They are caused by upward forces of the static pressure exerted by sedimentary deposits accumulating underneath; most of them never rise above the surface but remain as subsurface mounds. Their cores of plastic clay may arise from depths as much as 300 to 500 feet. Fissures or cracks develop in the islands, through which mud, gas, and salt water discharge and often build up low flat cones. In South and Southwest Passes, which have been jettied, there are arcs of mud lumps outside of and parallel with the peripheries of the bar deposits. In natural passes, the mud lumps are affected by submerged natural levees as well as by the bar deposits. Generally, the lumps appear within only a few weeks' time and, unless affected by succeeding periods of uplift, will wash away within a few years or be overrun by the encroaching marshland.

(47) **Tides.–**In the passes the tide has generally but one high and one low water in 24 hours, the diurnal range varying from 0.9 to 1.4 feet. At New Orleans the range of tide during low-river stages averages about 0.8 foot. There is no periodic tide at high-river stages.

(48) **Current off the Passes**.–Currents in the Gulf of Mexico are discussed in chapter 3. The currents are variable in direction and velocity depending to a great extent upon the velocity and direction of the wind, and near the entrance to the passes upon the stage of the river.

(49) A vessel on the course from Dry Tortugas to the Mississippi River generally will encounter an opposing or SE current for a distance of about 300 miles after leaving Dry Tortugas. For the last 125 miles before reaching the mouth of the river the current will usually set between N and E.

(50) During a light S wind a NE set of 2.2 knots has been observed 13 miles SE of South Pass entrance, and at the same time there was an E set of 0.5 knot at the lighted bell buoy off the entrance.

(51) At Southwest Pass Entrance Lighted Buoy SW the current is due chiefly to the discharge of the river. In general it sets SW and its velocity varies from 0 to 4 knots, the average being about 1.7 knots. At times, however, there is said to be a SE current of nearly a knot at this location.

(52) **Currents in the river**.–The current due to the tide is not strong at any point, and for purposes of navigation it is rarely taken into account. The average date of high-river stage occurs in April and of low-river stage in October. At Baton Rouge the extreme difference between high and low stages of the river is 40 feet, the mean difference is about 21 feet. At New Orleans, the extreme difference between high and low stages is 17 feet, the mean difference is about 8 feet. Zero on the Baton Rouge and New Orleans gage is the National Geodetic Vertical Datum of 1927 (NGVD).

(53) Currents for Baton Rouge and New Orleans are given below for high water flow of 1,100,000 cubic feet per second (cfs), medium water flows of 520,000 cfs, and low water flow of 180,000 cfs. Baton Rouge: 3.8 mph (3.3 knots), 2.6 mph (2.3 knots), and 1.3 mph (1.1 knots). New Orleans: 4.0 mph (3.5 knots), 2.8 mph (2.4 knots), and 1.4 mph (1.2 knots).

(54) At several places in the lower part of the river countercurrents or eddies often are found near the banks and, if taken advantage of, can greatly assist vessels bound up the river.

(55) At South Pass outside the jetties the current from the river frequently has a W set. At Southwest Pass it sets straight out from between the jetties, thence spreading out fan shaped, with slightly greater velocity to W.

(56) **Weather.**–The Gulf of Mexico moderates the climate of this region throughout the year. It reduces the range between extremes of temperature, increases humidity, and influences the windspeed and direction. E through S winds prevail for all months except January. These tempering Gulf winds carry warm, moist air which is favorable for sporadic, often quite localized, development of thunderstorms, particularly from May through October. From November through March, the area is subjected to fluctuations between tropical air and cool continental air. From December to June, the Mississippi River waters are usually colder than the air temperature, favoring the formation of river fogs, particularly with weak S winds. These fogs may be encountered anywhere from 60 miles off the delta passes to the city of New Orleans.

(57) Polar air masses and their fronts penetrate the Gulf of Mexico from the North American continent each winter. About 15 to 20 of these systems bring strong N winds, cold temperatures, and adverse weather. Winds of 60 knots or more may occur in severe "northers". Northers are most likely from November to March and usually last about a day and a half; severe storms may endure for 3 or 4 days.

(58) The tropical cyclone season runs from late May into early November. On average, hurricanes move through this region once every 4 years. In August 1969, Camille generated winds estimated at 175 knots. At Boothville, gusts climbed to 107 mph before the anemometer failed, and storm tides reached 15 feet. Surge heights varied at different locations because of the shape of the bays and inlets. Water levels reached 9 feet above mean sea level near the mouth of the Mississippi at Garden Island. In several places from the Empire Canal S to Buras, Boothville, and Venice, the surge poured over the E and W bank Mississippi River levees and was trapped by the back levee, leaving the built-up areas between the levees severely flooded. The highest actual wind measurement in Camille was a gust of 172 mph recorded on a Transworld Drilling Co. rig E of Boothville.

(59) **Routes**.–Approaching the mouth of the river from Florida Straits, deep-draft vessels usually set a course direct for the entrance to the shipping safety fairways off the passes or the Mississippi River-Gulf Outlet Canal from a position 10 or 12 miles SW of Dry Tortugas Light on Loggerhead Key. Low-powered vessels of moderate draft sometimes pass N from Florida Straits through Rebecca Channel, to the W of Rebecca Shoal Light, and for 200 miles set a course 10° to 20° N of the course to the passes of the river, and then change course for the entrance to the safety fairways off the passes or the Gulf Outlet Canal. This keeps them out of the strongest part of the Gulf current.

(60) Going to the Straits of Florida, a course usually is set for a point 10 or 12 miles SW of Dry Tortugas.

(61) Since in either direction soundings are of little value in determining position, observations should be relied upon. The currents vary considerably, so that even with the closest navigation a vessel bound for South Pass may make a landfall at Pass a Loutre or Southwest Pass.

(62) Vessels bound to Southwest Pass sometimes fall W of the Mississippi River delta, a situation which the mariner can quickly ascertain by soundings. The water shoals much more gradually along this part of the coast than off the delta.

(63) Approaching South Pass, a vessel uncertain of her position can set a course so as to pick up the 20-fathom curve from 5 to 20 miles NE of the lighted bell buoy off South Pass and then follow the curve SW to the entrance to the safety fairway. During thick weather, vessels might ground NE of South Pass and N of Southwest Pass, because of infrequent sounding. Due consideration should be given to the possible occurrence of mud lumps.

(64) Vessels approaching South Pass or Southwest Pass should become fairly certain of their positions in any weather by using radar or radio bearings in conjunction with soundings.

(65) In thick or foggy weather, Southwest Pass is more accessible and more easily navigated than South Pass because the former's channel is marked better, has greater width, and is nearly straight. Furthermore, a vessel is not set off course to the same extent by currents at the entrance.

(66) **Pilotage, Mississippi River.**–Pilotage is compulsory at the bar and on the river for all foreign vessels over 100 tons and U.S. vessels over 100 tons under register in foreign trade. Pilotage is optional for coastwise vessels that have on board a pilot licensed by the Federal Government. There are four pilot associations: the Associated Branch Pilots for the bar from sea to Pilottown; the Crescent River Port Pilots for the river between Pilottown and New Orleans; the New Orleans-Baton Rouge Steamship Pilots for the river between New Orleans and Baton Rouge; and the Associated Federal Pilots and Docking Masters of Louisiana, L.L.C., for public vessels and vessels in coastwise trade from Southwest Pass to Baton Rouge. On the Mississippi River-Gulf Outlet Canal, the Associated Branch Pilots take vessels from the entrance to Light 78, about 38 miles above the entrance, where they are relieved by the Crescent River Port Pilots, who take vessels on to New Orleans.

(67) **Note**.–The Associated Branch Pilots, Port of New Orleans, advised that South Pass has a recommended draft limit of 15 feet. The pilots further advised that a recommended deadweight tonnage limit of 21,000 d.w.t. and/or 15 feet is in effect for ships using South Pass. The deadweight tonnage limit is recommended because ships of large tonnage do not steer well. The tonnage limit is subject to a larger limit as the draft limit deepens.

(68) Southwest Pass has a recommended draft limit of 45 feet. There is no limit on deadweight tonnage for ships using Southwest Pass.

(69) Pilots for South Pass and Southwest Pass board vessels in areas up to 3 miles off the sea buoys at the passes, depending on the weather. Pilots for the Mississippi River-Gulf Outlet Canal board vessels in the vicinity of Mississippi River-Gulf Outlet Approach Lighted Horn Buoy NO (29°26'24"N., 88°56'48"W.). The **Associated Branch Pilots** have 65-foot diesel-powered tenders with red hulls and white housing. They fly the International Code flag "P" and are equipped to handle radio traffic on VHF-FM channels 6, 9, 16 and 67. VHF-FM channel 67 is the working channel. There is a pilot station at Southwest Pass off the West Jetty about 2 miles inside the entrance. There is a pilot station at South Pass at a small settlement on the W side about 0.5 mile above the ends of the jetties. Both pilot stations are equipped to handle radio traffic on the same VHF–FM channels as the pilot boats. They have radiotelephone communication with the pilot office in New Orleans. Pilots may be obtained by making a signal off the bar, as both pilot stations maintain lookouts, or on advance notice by telegraph (cable address: BARPI), radio, radiotelephone through the New Orleans Marine Operator, telephone (504-524-3384), or through the ships' agents. Vessels are boarded and taken in day or night. For boarding, the pilots request that the pilot ladder be rigged 6 feet above the water on the lee side of the vessel. All bar pilots carry portable radiotelephones. The pilots request a 24-hour advance notice of arrival.

(70) The pilots for the river between Pilottown and New Orleans have an office in New Orleans that is manned 24 hours a day year round. Vessels requiring a Crescent River Port Pilot shall provide an estimated time of arrival (ETA) at least 24 hours prior to arrival off the Southwest Pass or the MR-GO sea buoys. If the original ETA changes by more than 2 hours, an amended ETA is required 12 hours in advance of arrival, or if the arrival time is later than the original ETA, an amended ETA is required 12 hours prior to the original ETA. Vessels arriving without the required notice may be delayed if a pilot is not available in addition to the penalties specified in the tariff. Vessels may notify the Crescent Pilots, 24 hours a day, by telephone (504-392-8001), by fax (504-392-7598), by telex (6737841), or cable (CRESPILOTS, New Orleans, via radio station WNU). The river pilots board vessels off Pilottown, about 2.3 miles above Head of Passes Light. The pilot station, on the E side of the river at Pilottown, maintains a lookout and is equipped to handle radio traffic on VHF-FM channels 9 and 67. The **Crescent River Port Pilots** have fast motorboats painted white with the names RIVER PILOT or CRESPILOT in black on the sides. The Crescent River Port Pilots take vessels from Pilottown upriver to New

Orleans and from Light 78 on the Mississippi River-Gulf Outlet Canal to New Orleans. On the canal, pilots board vessels from a private launch at Light 78. The river pilots boarding vessels at Pilottown rarely have information from the vessel's agent pertaining to the vessel's destination or working schedule while in port. It is advised that vessel masters contact their agent via radio station WNU or preferably through the New Orleans Marine Operator to obtain information on the vessel's exact destination and to advise the agent of the vessel's ETA in order that the agent can arrange for tugs, line handlers, boarding party, or, if necessary, a New Orleans-Baton Rouge Pilot. All Crescent River Port Pilots carry portable radiotelephones for bridge-to-bridge communications with other vessels on the river and canal.

(71) The **New Orleans-Baton Rouge Steamship Pilots** usually board vessels continuing upriver off **The Point.** The pilots board vessels from commercial launches. The launch station is at Arabi on the E side of the river about 1.6 miles below the Inner Harbor Navigation (Industrial) Canal. All the upriver pilots carry portable radiotelephones and communicate with other vessels on the river. Their working frequency is VHF-FM channel 67. They can be obtained by notifying the Crescent River Port Pilots at Pilottown, by prior notice by telegraph, radio, radiotelephone through the New Orleans Marine Operator, telephone (504-466-7881 or 466-7882), or through ships' agents. The pilots request a 3-hour advance notice of time of sailing for all downriver bound vessels departing berths above Norco, about 126 miles AHP.

(72) The Associated Federal Pilots and Docking Masters of Louisiana L.L.C. provide service for public vessels and vessels in the coastwide trade from Southwest Pass to Baton Rouge. The pilots have a gray 46-foot boat, FEDERAL PILOT 1, and a gray 40-foot boat, FEDERAL PILOT 3, and meet vessels at Southwest Pass Entrance Lighted Buoy SW. Vessels to be boarded should provide a ladder 6 feet above the water and maintain a slow speed. The pilot boats fly International Code flag P by day and monitor VHF-FM channels 9 and 16, with channels 9,16, 6, 67, and 79A used as working frequencies. The pilot station monitors VHF-FM channels 9 and 16. Arrangements for pilots are generally made in advance by telephone (504-524-3474) or through ships' agents. The Associated Federal Pilots e-mail address is FEDPILOT@Bellsouth.net. A 12 hour estimated time of arrival (ETA) is requested.

(73) **Towage.–**Tugs of about 2,400 hp are normally used for assisting in docking, undocking, towing in the harbor and canals, and towing to sea. Tugs of up to 4,600 hp are available. Two tugs must be employed on all towing to and from the drydocks and should be employed on all ships towed around Algiers Point when the traffic lights are operating, and by large vessels going through the Inner Harbor Navigation Canal. The tugs are equipped to handle radio traffic on VHF-FM channel 67. There are two diesel-powered fireboats in the harbor.

(74) **Quarantine** on the river is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.) A 4,000-foot **quarantine anchorage** is on the W side of the river at New Orleans, about 2.3 miles E of the Inner Harbor Navigation (Industrial) Canal. The upper end is marked by a quarantine anchorage sign. (See **110.1 and 110.195**, chapter 2, for limits and regulations.) The quarantine station is at the New Orleans National Airport, and officials maintain regular service for marine inspections from 0600 to 1800. Outside of these hours, vessels may be boarded on request, but a charge is made for services. Quarantine clearance is granted by the New Orleans station for all vessels destined to all ports on the Mississippi River or to ports reached via the Mississippi River. Vessels are usually cleared either at anchor or at the dock.

(75) **Agricultural quarantine** is enforced in accordance with regulations established by the Animal and Plant Health Inspection Service of the U.S. Department of Agriculture. Officials making inspections for the ports on the Mississippi River, from the mouth to Gramercy, have an office at the U.S. Customhouse in New Orleans. (See appendix for address.) Vessels are inspected at anchor and alongside the docks. Arrangements are usually made through the ships' agents.

(76) **Customs.–**New Orleans and Baton Rouge are ports of entry. Vessels are generally boarded at berth; however, arrangements can be made for boarding anywhere within the port limits.

(77) **Immigration and Naturalization.–**The Immigration and Naturalization Service maintains a district office and a port of entry at New Orleans and serves the port facilities from the mouth of the Mississippi River to Remy, about 150.7 miles AHP. The Baton Rouge office serves the port facilities above Remy. (See appendix for addresses.)

(78) **Coast Guard.–**The **Captain of the Port** maintains an office in New Orleans. **Marine inspection** and **vessel documentation** offices are at New Orleans. (See appendix for addresses.)

(79) **Harbor regulations.–**Federal regulations for navigation of the river are given in **162.80, 165.1 through 165.25, 165.803, 165.810, and 207.200**, chapter 2.

(80) **Supplies.–**An unlimited supply of ships' stores, marine supplies, and provisions can be obtained at New Orleans. Water is available at all piers and wharves. Bunker C fuel oil and diesel fuel can be supplied at the oil terminals or from tank barges while vessels are alongside the wharves.

(81) **Repairs**.–New Orleans has facilities for all types of above- and below-water hull and engine repairs. The largest floating drydock has a capacity of 81,000 tons for a length of 900 feet. Shipbuilding and ship repair plants are well equipped with machine shops and foundries. Floating cranes up to a capacity of 660 tons are available. There are smaller drydocks, marine railways, and boatyards for repair of medium and small craft.

(82) **Salvage facilities.–**Equipment necessary for heavy salvage work at sea or in the port is available at New Orleans, including floating derricks, dredges, barges, pumps, diving equipment, and ground tackle. Oil salvage barges are at the shipyard at Avondale and Baton Rouge.

(83) **Chart 11361.–Southwest Pass,** the westernmost of the passes of the Mississippi, is 18 miles WSW of South Pass entrance and 295 miles E of Galveston entrance. The pass has been improved by the construction of jetties on both sides at the entrance.

(84) Near the ends of the jetties the depths are somewhat changeable, although there appears to be deep water in the Gulf from nearly every direction up to within 2 miles of the entrance.

(85) The approach to Southwest Pass is marked by a lighted whistle buoy, 1.6 miles S from the jetty ends. From the buoy to abreast of Southwest Pass Entrance Light, the channel is marked by lighted buoys on the W side of the channel and by a lighted range. Other lighted ranges continue from the first range. Lights marking the channel are off some of the spur dikes extending channelward from along the inner bulkhead of the jetties.

(86) A racon is at the charted platform SSW of the entrance to Southwest Pass in about 28°50'01"N., 89°27'10"W.

(87) Depths in Southwest Pass Entrance are subject to some change, but the current, so far as is known, can be depended upon to set nearly straight out from between the jetties. Spur dikes have been constructed channelward from the jetties.

(88) Federal project depth is 45 feet. Contact the New Orleans District Office, Corps of Engineers, for controlling depths; the office is located at the foot of Prytania Street, New Orleans; telephone (504-865-1121).

(89) **Note.–**The Associated Branch Pilots, Port of New Orleans, advise that Southwest Pass has a recommended draft limit of 45 feet.

(90) In the pass the sides are a sufficient guide. Lights are on both sides, and a lighted range for entering the pass is at its head. There are numerous wharves, most of which are for transferring petroleum products from ship to barge, on both sides of the pass. Most of these wharves are marked by privately maintained lights.

(91) **Burrwood** is on the SE bank 5 miles above the jetties.

(92) **South Pass,** one of the three important commercial entrances to the Mississippi River from the Gulf, lies 425 miles NW of Dry Tortugas and 90 miles SW of Mobile Bay entrance. The pass has been improved by the construction of jetties on both sides of the entrance. Immediately outside the entrance the depths are subject to considerable change, due to the large amount of sediment brought down by the strong river currents; but at a distance of 2 miles out from the end of the jetties the depths are more dependable, and over 10 fathoms can be found in any E or S direction.

(93) Federal project depth is 17 feet. Contact the New Orleans District Office, Corps of Engineers, for controlling depths; the office is at the foot of Prytania Street, New Orleans; telephone (504-865-1121).

(94) **Note.–**The Associated Branch Pilots, Port of New Orleans, advise that South Pass has a recommended draft limit of 15 feet. They further advise that a recommended deadweight tonnage limit of 21,000 d.w.t. and/or 15 feet is in effect for ships using South Pass. The deadweight tonnage limit is recommended because ships of large tonnage do not steer well. The tonnage limit is subject to a larger limit as the draft limit deepens.

(95) The entrance approach is marked by a light, 1.5 miles SE of the end of the jetties. A buoy marks the shoal ground between 0.2 and 0.5 mile off the end of the jetties on the W side of the channel. This dangerous shoal has depths of 2 to 17 feet over it. The buoy marks the E portion of the shoal. Except for changes during and after high-river stages, the position of this shoal and depths on it are fairly constant. This shoal, coupled with strong river currents, makes navigation of South Pass difficult for strangers. A bend in the channel near Head of Passes also adds to the difficulty. Depths in the channel at the entrance to South Pass are subject to frequent change. Strangers are advised to take a pilot. The current has considerable velocity, which tends to carry a vessel upon the shoal on the W side of the channel.

(96) **Routes.–**Stand in for the light and bring the South Pass West Jetty Lighted Range on the bearing **297°**. Steer this range, passing to the NE of the buoy about 250 to 300 feet to the W of the end of the E jetty, which is marked by a light. A fog signal is on the W side of the channel on South Pass West Jetty Front Range tower. The current will strike the vessel on the starboard bow as the end of the E jetty is approached. The vessel should be headed to meet the current, and by the time she is abreast the E jetty she should be heading fair between the jetties.

(97) When in the pass the banks are a sufficient guide, care being taken to keep about midway between them. Several lights are on the E and W sides, and a lighted range for entering the pass is at its head.

(98) The passes begin to converge at Head of Passes, a point 14 to 20 miles, respectively, above the mouths of South and Southwest Passes. The perimeter of the delta around the most widely divergent passes is about 40 miles.

(99) **Head Range Channel** leading from the head of Southwest Pass into the river is part of the 45-foot Federal project for the pass and river. **Cypress Range Channel** leading from the head of South Pass into the river is part of the 17-foot Federal project for South Pass. Dredging is necessary to maintain both channels to near project depths. Contact the New Orleans District Office, Corps of Engineers, for controlling depths; the office is at the foot of Prytania Street, New Orleans; telephone (504-865-1121). Lighted ranges mark the two channels, and lights mark the jetties at the head of the passes.

(100) At **Head of Passes,** three of the river's important passes come together; South Pass, Southwest Pass, and Pass a Loutre. This point of confluence is at **Head of Passes East Jetty Light** (29°09'06"N., 89°15'00"W.). From this point, measurement is made of all distances on the river S or below the mouth of the passes, and N or above Head of Passes (AHP) to Cairo, Ill.

(101) **Pass a Loutre** and its branches, **Southeast Pass, North Pass, Northeast Pass,** flow E into the Gulf. These passes are deep from the Head of Passes to within a short distance of the Gulf, but the mouths are obstructed by bars. Small local craft occasionally use these passes, but strangers should avoid them. Pass a Loutre and North Pass have depths of about 7 feet over the bars; the others are much shallower. North Pass is marked by a lighted bell buoy. Pass a Loutre is marked by a lighted bell buoy.

(102) An abandoned lighthouse, a 76-foot black and white spirally banded tower, is on the N side of Pass a Loutre, 2.3 miles inside the entrance. Another abandoned lighthouse, a grayish-white tower, is 1.7 miles W of the entrance to Northeast Pass.

(103) The marsh lands from Main Pass southward are used extensively for hunting and oil operations; some oyster camps are located in the **Redfish Bay** area.

(104) From Head of Passes to New Orleans, the river has a least width of 600 yards and a clear unobstructed channel with depths of from 31 to 194 feet. There are a few shoals along the river banks. The outer limits of a shoal on the E side of the river, 8.2 miles AHP, is marked by a lighted buoy. On both sides of the river the land is dry, and in the lower reaches it is covered mostly with coarse grass and willows.

(105) Above Bohemia on the E side and The Jump on the W, levees prevent overflow at high water. Below Bohemia, a 10-mile break in the levee permits flood waters to move E into the Gulf. On both sides of this break are levees extending from the river to the Gulf, to prevent the flooding of adjacent land. Below this break the levee continues to Baptiste Collette Bayou.

(106) The land back of the levees on the E side, formerly laid out in sugar and rice plantations, now is given over to pasturage and market gardens. Orange groves are back of the levees on the W side. New Orleans is reached by river boats and also by railroads and highways which extend down the W side to Venice (The Jump) and down the E side to Bohemia, about 10.4 and 45.8 miles, respectively, AHP.

(107) **Caution during high stages of the river.**–Vessels navigating the Mississippi River at flood stages, when passing habitations or other structures, partially or wholly submerged and subject to damage from wave action, shall proceed slowly and keep as far away from such structures as circumstances permit, and shall also proceed slowly when passing close to levees.

(108) Under these conditions, between Baton Rouge and The Jump, mariners are directed to steer a course as close as possible to the center of the river and to proceed at a speed sufficiently slow so that levees and revetments will not be endangered by wave wash. Careful observation by mariners of the effects of the vessel's wash is a vital element in this control.

(109) Strong currents and shifting eddies in the vicinity of Algiers Point will be encountered during high stages of the river. These conditions may make hazardous the operation of a tow which could normally be handled with ease. It is accordingly requested that operators and masters exercise every precaution when operating in the area controlled by the New Orleans Harbor traffic lights. Size of tows and tugs should be considered in view of conditions which may be expected.

(110) The river is well marked with lights, and for the most part the banks are sufficient guides. The distance from Head of Passes to New Orleans is 95 miles.

(111) **Pilottown**, a small village on the E side of the river 2 miles AHP, is the exchange point for bar pilots and river pilots for both inbound and outbound vessels. A wingdam about 1.6 miles AHP is marked by a light and seasonal fog signal. The pilots' wharf about 2 miles AHP and a wingdam inshore on the E side are marked by private lights. The Texas Pipeline Co. wharf, about 0.6 mile N of the pilot wharf, has berthing for 600-foot vessels and 38 feet alongside. Crude oil is shipped and received.

(112) **Cubits Gap** is an opening on the E side of the river about 3.5 miles AHP, at which **Raphael Pass, Main Pass**, **Octave Pass,** and **Brant Bayou** meet and connect with the river. These passes are navigable for small craft, but Main Pass is the only one having a navigable connection with the Gulf. A sill of willow brush weighed down by rocks has been laid across the entrance to each of these passes. With local knowledge, certain spots along the sills may be crossed by drafts of 5 to 9 feet.

(113) **Cubits Gap Light 4,** on the SE side of the gap, is shown from a skeleton tower with a red triangular daymark; a seasonal fog signal is at the light.

(114) **Main Pass,** in May 1984, had a controlling depth of 4 feet from the Mississippi River for about 2.1 miles, thence there was shoaling to Breton Sound. In August 1984, it was reported that vessels of 3-foot draft could navigate the pass at high water. This pass is used considerably by fishing vessels and oil companies operating in Chandeleur and Breton Sounds.

(115) The buildings of the Department of Interior's Delta National Wildlife Refuge and a lookout tower at the old quarantine station on the E side just above the gap are conspicuous.

(116) **The Jump** is an opening on the W side 10.6 miles AHP, where Grand Pass, Tiger Pass, and several smaller passes connect with the river. There is a sill across the entrance at a depth of about 15 feet and a depth of about 4 feet can be carried through Grand Pass into the Gulf.

(117) **Tiger Pass,** close W of Grand Pass, connects the river via The Jump with the Gulf. In November 2000-April 2001, the controlling depth was 3 feet (4 feet at midchannel) from the Gulf to Light 18, thence 10 feet to the junction with Grand Pass, thence 17 feet to the Mississippi River. The entrance from the Gulf is protected by jetties. Lights and daybeacons mark the entrance and the lower 5 miles of the pass. A Coast Guard Aids to Navigation Team is on the W side of the head of the pass at Venice.

(118) **Venice** is a fishing and marine repair center on the W side of Grand Pass just inside The Jump. Oil companies have service and repair bases, and drilling mud, pipe, and equipment are loaded here for the offshore drilling rigs in the Gulf. Boatyards have a 150-ton lift and cranes to 100 tons; hull and engine repairs are made. Oil well platforms are built at Venice. Gasoline, diesel fuel, water, ice, provisions, marine supplies, berths, a 3-ton lift, and ramps are available at marinas. A Corps of Engineers wharf is on the W side just N of The Jump. Wharves and small-craft landings are at Venice on Grand Pass and on the W side of the river between Venice and Boothville. Bus service is available to New Orleans from Venice on State Route 23, which runs along the W side behind the levee.

(119) Getty Oil Co. ships crude oil from a wharf on the W side of the river about 1.6 miles above The Jump. The wharf has 40 feet reported alongside and berthing space for 785-foot vessels.

(120) **Baptiste Collette Bayou** (see charts 11353, 11361, and 11363), on the E side of the river 11.5 miles AHP, connects the Mississippi River with Breton Sound. The entrance from Breton Sound is protected by jetties. In June 2002, the controlling depth was 8 feet across the bar in Breton Sound; thence in 1997-March 2002, 11 feet to the Mississippi River. The channel is marked by lights and daybeacons.

(121) **Boothville** is a small town on the W side of the river about 16.1 miles AHP. A public wharf 100 feet long is 14.7 miles AHP.

(122) **Chart 11364.–Fort Jackson** is on the W side of the river at the bend in the river about 19.6 miles AHP. Here the river takes a SW trend for about 2.3 miles, then trends WNW..

(123) **Ostrica** is a small village on the N side of the river about 24.7 miles AHP. The State-owned **Ostrica Canal,** which connects the river with Quarantine Bay, enters the river 25 miles AHP. (See chapter 7 for a description of the canal and lock.)

(124) **Buras** is a small town and fruit shipping center on the S side of the river about 25.7 miles AHP. A water tank is prominent.

(125) **Empire** is a town on the W side of the river about 29.5 miles AHP. A tank and a church spire are prominent. **Empire Canal** leads from the river at Empire to the Gulf W of the river. The canal, lock and dam, and the port facilities on the canal at Empire are described in chapter 9. A pile cluster mooring is at **Nairn** on Sixtymile Point about 32.2 miles AHP.

(126) **Home Place,** a town on the S side of the river 38.1 miles AHP, has an oil transfer barge wharf.

(127) **Port Sulphur** is on the W side of the river about 39.4 miles AHP. The loading towers, two tanks, and conveyor galleries of the sulfur plant are very conspicuous. Two ship docks are operated by Freeport Sulphur Co. for the shipment of liquid and dry bulk sulfur. The docks are 458 and 800 feet long and have 50 feet reported alongside. The wharves are marked by privately maintained lights.

(128) An oil transfer barge wharf is on the E side of the river at **Nestor** about 40.3 miles AHP.

(129) **Bohemia** is a small village on the E side of the river about 45.8 miles AHP. State Route 39 leads along the E side of the river behind the levee from Bohemia to New Orleans.

(130) **Pointe a la Hache,** 49 miles AHP and about 46 miles below New Orleans, is the seat of Plaquemine Parish which embraces most of the lower Mississippi River. Gasoline, water,

and some marine supplies can be obtained in the town. The courthouse clock tower, a water tank, and several radio and microwave towers are very prominent. A ferry crosses the river at Pointe a la Hache. Bass Enterprises Production Co. ships crude oil from a wharf 0.7 mile above the ferry landing. The wharf has 280 feet of berthing space with dolphins and 30 feet reported alongside. On the W side of the river, opposite Pointe a la Hache about 48.9 miles AHP, there is an oil transfer barge wharf.

(131) An oil transfer wharf operated by the Texas Pipeline Co. is at **Davant** on the N side of the river about 51.8 miles AHP. The wharf, marked by a private light, has 280 feet of berthing space with dolphins and 25 feet reported alongside.

(132) At **Bellevue,** on the N side of the river about 55.2 miles AHP, Electro-Coal Transfer Corp. operates two bulk-material handling wharves marked by private lights. The lower wharf has 1,164 feet of berthing space with dolphins, 55 to 70 feet reported alongside, and a deck height of 15 feet. Four unloading towers with a combined capacity of 4,200 tons per hour can transfer bulk materials directly from oceangoing vessels to river barges berthed at the rear of the dock face. The upper wharf has 1,880 feet of berthing space with dolphins, 55 to 70 feet reported alongside, and a deck height of 16½ feet. Fixed and traveling loading towers on the wharf have capacities to 6,000 tons per hour. Principal commodities handled are coal and petroleum coke. The towers and conveyors on the wharves are conspicuous.

(133) On the S side of the river about 57 miles AHP, International Marine Terminals operates two bulk-material handling wharves marked by private lights. The lower wharf has 950 feet of berthing space with dolphins, 40 feet reported alongside, and a deck height of 15 feet. Two ship-loading towers can load vessels with coal at a combined rate of 11,500 tons per hour. The upper wharf has 750 feet of berthing space with dolphins, 40 feet reported alongside, a deck height of 15 feet, and is used for the direct transfer of dry bulk materials from river barges to oceangoing vessels.

(134) A grain elevator and wharf operated by Mississippi River Grain Elevator, Inc., is on the S side of the river 61.8 miles AHP. The wharf has a 536-foot face, 40 feet reported alongside, and a deck height of 23½ feet. Three gantry ship loaders have a combined loading rate of 50,000 bushels per hour. The wharf is marked by private lights.

(135) An offshore barge wharf and an offshore oil transfer tanker wharf operated by Gulf Oil Co.-U.S. are at **Alliance** on the S side of the river at 62.5 and 63 miles AHP. The barge wharf has 702 feet of berthing space with dolphins and a conveyor and loading tower for handling coke. The oil transfer tanker wharf with mooring dolphins allows 1,085 feet of berthing space with depths of 60 feet reported alongside. Transfer barges berth on the backside of the tanker wharf. The dolphins and wharf are marked by privately maintained lights.

(136) On the W side of the river 71.7 miles AHP, Dockside Elevators, Inc., operates two floating grain elevators used to transfer grain from river barges to oceangoing vessels. Vessels anchor in the river in depths of 80 feet with the grain elevators moored alongside. Cranes on the elevators transfer the grain from barges moored on the opposite side of the vessel at a rate of 300 to 500 tons per hour.

(137) At **Oak Point,** on the W side of the river 72.3 miles AHP, Chevron Chemical Co. ships and receives chemicals. The wharf has 675 feet of berthing space with dolphins, 44 feet reported alongside, and a deck height of 10 feet. The dolphins are marked by private lights.

(138) **Belle Chasse** is on the W side of the river about 75.5 miles AHP. A T-shaped molasses handling wharf operated by Red Star Yeast and Products Co. has 240 feet of berthing space with dolphins and depths of 25 feet reported alongside. The dolphins are marked by private lights. A ferry crosses the river from Belle Chasse to **Scarsdale** on the E side of the river. The ferry landings are marked by privately maintained lights.

(139) **Port Nickel** is on the E side of the river about 76.5 miles AHP. Amax Nickel Refining Co., Inc., has two wharves. The lower wharf has 774 feet of berthing space with dolphins, 37 feet reported alongside, a deck height of 20 feet, and is used to receive nickel ore and to ship ammonium sulphate and drummed nickel. The upper wharf has 440 feet of berthing space with dolphins, 37 feet reported alongside, a deck height of 20 feet and is used to receive fuel oil and ship sulfuric acid. The unloading conveyor galleries and the stack and buildings of the nickel plant are conspicuous.

(140) **Braithwaite,** on the S side of the river about 79.7 miles AHP just above **English Turn Bend,** has a large shipyard that specializes in the construction of medium to large barges and the repair of commercial vessels. An 800-ton floating drydock and a marine railway that can haul out vessels to 300 feet are at the yard.

(141) **Meraux,** on the N side of the river about 87.5 miles AHP, has an oil refinery with facilities for receipt and shipment of crude oil and petroleum products by tanker and barge. The tall stacks and cracking towers of the refinery are prominent.

(142) **Algiers Alternate Route** and **Algiers Lock,** on the S side of the river about 88.4 miles AHP, connect the Mississippi River with an extensive network of inland waterways W of New Orleans. The route is an alternate route of the Intracoastal Waterway leading W of New Orleans. (See chapter 12 for description of canal and lock.)

(143) **Chalmette,** on the N side of the river about 88.9 miles AHP, has several large oil refineries and an aluminum plant. The stacks and cracking towers of the refineries and the aluminum plant are conspicuous. Several wharves between mile 88.3 and 89.1 AHP are used for the receipt and shipment of petroleum products and for bunkering vessels. (See Wharves under Port of New Orleans for descriptions.)

(144) An overhead power cable with a clearance of 175 feet crosses the river at Chalmette about 89.0 miles AHP.

(145) A ferry crosses the river from Chalmette to Algiers on the S side.

(146) **Chalmette Slip** indents the N side of the river at about 90.7 miles AHP. Chalmette National Monument, a tall white obelisk, is conspicuous close E of the slip. Berthing for deep-draft cargo vessels is available on the E and W sides of the slip. (See Wharves under Port of New Orleans for description.)

(147) The New Orleans general anchorage, about 2 miles long, is off the S side of the river opposite Chalmette Slip, and the quarantine anchorage, about 0.7 mile long, is just above it.

(148) **Arabi,** a suburb of New Orleans, is on the N side of the river just W of Chalmette. A deep-draft wharf and a smaller wharf are at a large sugar refinery; one wharf is used by ship service boats and the other by the refinery company. (See Wharves under Port of New Orleans for description.)

(149) Just W of the sugar refinery wharf, at the ship service boat wharf, is the landing for the pilot boat. The upriver pilots board

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vessels off the landing in the section of the river known as **The Point.** Here vessels bound for destinations above New Orleans discharge the river pilot and take on board the New Orleans–Baton Rouge Steamship Pilot, or upriver pilot.

(150) On the S side of the river opposite Chalmette and Arabi at **Algiers** are barge moorings, towing company wharves, the large floating drydocks of a large ship repair firm, the U.S. Naval Station, and other towing company wharves and barge moorings.

(151) The Inner Harbor Navigation Canal entrance is on the N side of the river about 92.7 miles AHP. The Intracoastal Waterway enters the river through the canal. There are numerous industries along both sides of the Inner Harbor Navigation Canal, including shipbuilding and ship repair yards, cement and concrete mixing plants, chemical, fertilizer, steel fabrication, glass making, instant coffee, and drilling mud manufacturing plants, boatyards, shipwrecking and salvage yards, oil well and dredging company supply bases, and shell-handling wharves.

(152) The vessel is now approaching the loop in the river that encompasses the city of New Orleans on three sides, and ahead are the numerous tall buildings in the main part of the city. Most of the commercial wharves of the Port of New Orleans are on both sides of the river in this section.

(153) **Charts 11369, 11368.–Port of New Orleans** is one of the largest ports in the United States. It is located on both sides of the Mississippi River with its lower limit about 80.6 miles AHP, and its upper limit about 115 miles AHP. The limits of the port encompass the parish of Orleans and the river frontage of the parishes of St. Bernard and Jefferson. This includes the city of New Orleans, the towns and communities of Violet, Meraux, Chalmette, Arabi, Southport, Harahan, and Kenner on the N side, and Algiers, McDonoghville, Gretna, Harvey, Marrero, Westwego, Bridge City, and Avondale on the S side. The frontage for deep-draft vessels within the port limits includes approximately 58 miles along the river banks, about 11.5 miles on the Inner Harbor Navigation Canal, and the Mississippi River-Gulf Outlet Canal. The Intracoastal Waterway above the Inner Harbor Navigation Canal and below Harvey Lock offers frontage for barges and small vessels.

(154) The city of **New Orleans** is the major commercial area within the port limits. It is one of the largest cities on the Gulf and is a natural gateway to and from the vast central and S portions of the nation, and particularly to the entire Mississippi Valley with which it is connected by numerous inland water routes. From New Orleans, main-route air and rail lines fan out to all parts of the country. Foreign and coastwise trade are extensive. The chief

imports are crude petroleum, coffee, iron and steel products, metalliferrous ores and scrap, nonferrous metals, sugar, crude rubber, meat and meat products, and manufactures of metal. The chief exports are grain, machinery, oilseeds, animal feeds, nonferrous metals, organic chemicals, oils and fats, metal ores and scrap, iron and steel products, and coal.

(155) New Orleans is a popular resort with many fine hotels, theaters, restaurants, parks, and places of historical interest. Among the latter is the famous French Quarter (Vieux Carre) which is kept in as near its original state as possible. For the convenience of representative citizens of foreign countries who arrive or depart via New Orleans, an international world trade center known as the **International House** is in a 10-story building at the corner of Gravier and Camp Streets.

(156) The city proper is bounded on three sides by the Mississippi River. The city limits extend N to Lake Pontchartrain, which is connected to the river by the Inner Harbor Navigation Canal along the E side of the city. Strong levees protect the city from flood waters of the Mississippi River, which at times rise to a level higher than that of the city streets.

(157) Abreast of New Orleans on the opposite bank of the river are **Algiers,** which is part of the city of New Orleans, **McDonoghville, Gretna, Harvey, Marrero,** and **Westwego.** Algiers and Gretna are connected with New Orleans by ferries operated by the Mississippi River Bridge Authority and the Crescent City Connection Division, Bridges and Marine Administration.

(158) The Port of New Orleans has over 28 miles of public and private wharves and other related facilities. The public docks can handle as many as 85 ships at a time. The port is mainly a general cargo port, and the first objective is to give shippers whatever facilities and services they need to handle any type of cargo. Modern handling devices suitable for the varied commodities entering the port are provided on the wharves and in the transit sheds. Almost all wharves have rail connections.

(159) The port is the heart of the busiest grain export area in the world. The port's public grain elevator can store over 7.2 million bushels and transfer up to 1.9 million bushels of grain a day. A Public Bulk Terminal is on the N side of the Mississippi River-Gulf Outlet Canal about 1.7 miles E of the Inner Harbor Navigation Canal. Its three unloading towers each can discharge ore, bulk sugar, and other bulk commodities at the rate of 3,350 tons per hour. The port also has existing and developing facilities for handling containerized cargo.

(160) Most of the wharves along the waterfront of the city of New Orleans are public facilities under the control of the Board of Commissioners (Dock Board) of the Port of New Orleans. Virtually all these wharves parallel the river bank, and for about 10 miles along the bank there is an almost continuous quay. Transit sheds cover much of the wharf area. Depths at the wharves range from 6 to 42 feet, with about 35 feet alongside most wharves. It is the Dock Board's responsibility to keep sufficient depths alongside the wharves for ships to berth. The board controls the area from the faces of the wharves to 100 feet into the stream. The dock areas silt up rapidly and change from day to day. The Dock Board's dredge is working continually to keep the docks open.

(161) The offices of the Dock Board are in the 33-story International Trade Mart building on the waterfront in Eads Plaza at the foot of Canal Street.

(162) **Channels.–**The main deepwater channels leading to and in the Port of New Orleans are in the river, the Inner Harbor Navigation Canal, and the Mississippi River-Gulf Outlet Canal. (See Channels at the beginning of this chapter.) Secondary channels for shallow-draft vessels and barges are on Algiers, Harvey, and other canals and waterways that radiate from the river in all directions.

(163) The **Inner Harbor Navigation Canal (Industrial Canal)** offers a deepwater connection between Mississippi River and Lake Pontchartrain, a distance of about 5.8 miles. The lock is about 0.6 mile N of the Mississippi River Levee; inside dimensions are 640 feet long, 75 feet wide, and 31½ feet over the sills at low water in the Mississippi River. Approaching craft are directed by loudspeaker, lights, and radiotelephone. VHF-FM channels 14 and 16 are continuously monitored. N from the lock in October 1995, the controlling depths were 29 feet to the Seabrook Highway and Southern Railway bridges at the N end of the canal, thence 14 feet across the bar into Lake Pontchartrain. A 900-foot-wide turning basin about 0.7 mile N of the lock has depths of 31 feet. A second turning basin at the junction with the Mississippi River-Gulf Outlet Canal has a 1,600-foot diameter with depths of 40 feet.

(164) **Caution.–**A submerged drainage line is reported crossing the Inner Harbor Navigation Canal just S of the Florida Avenue bridge; maximum permissible draft over the line is 30 feet.

(165) A total of eight bridges cross the canal between the Mississippi River and Lake Pontchartrain. The St. Claude Avenue highway bridge at the S end of the navigation lock has a bascule span with a clearance of zero feet. The North Claiborne Avenue (Seeber) highway bridge, about 0.2 mile N of the lock, has a vertical lift span with a clearance of 40 feet down and 156 feet up. About 1 mile N of the lock, the combination Florida Avenue and Southern Railway bridge has a bascule span with a clearance of zero feet. An overhead power cable crossing close N of the bridge has a clearance of 166 feet. The combination Gentilly Road highway and Seaboard System Railroad (L&N) bridge, 2.8 miles N of the lock, has a bascule span with a clearance of zero feet. The U.S. Interstate Route 10 highway bridge close N of Gentilly Road bridge has a fixed span with a clearance of 120 feet for the middle 200 feet and 115 feet elsewhere. An overhead power cable crossing close N of this bridge has a clearance of 136 feet. Chef Menteur Highway (U.S. Route 90) bridge, 3 miles N of the lock, has a vertical lift span with clearances of 50 feet down and 120 feet up. The combination Seabrook Highway and Southern Railway Bridge across the N entrance of the canal, about 4.7 miles N of the lock, has a bascule span with a clearance of 1 foot. A highway bascule bridge with a clearance of 46 feet at the center crosses the canal close N of the Seabrook Highway and Southern Railroad Bridge. (See **117.1 through 117.59 and 117.459**, chapter 2, for drawbridge regulations.)

(166) Bridgetenders of the following bridges monitor VHF-FM channel 16 and work on channel 13:

(167) St. Claude Avenue, WG-401;

(168) Florida Avenue, WUG-409;

(169) Gentilly Road, KZV-719;

(170) U.S. Route 90, KRS-864; and

(171) Seabrook Highway, KZV-819.

(172) **New Orleans Coast Guard Base** is on the W side of the Inner Harbor Navigation Canal, just N of the lock.

(173) **Harvey Canal** is opposite New Orleans about 98.2 miles AHP. The canal and locks connect the Mississippi River with an extensive network of inland waterways SW of New Orleans. The

canal is the route of the Intracoastal Waterway. (See chapter 12 for description of canal and locks.)

(174) **Anchorages.**–General and quarantine anchorages are on the W side of the river at New Orleans. (See **110.1 and 110.195**, chapter 2, for limits and regulations.) Vessels may also take anchorage as directed by the Coast Guard District Commander.

(175) **Dangers.**–Submerged revetments are located on the river bottom on both sides in the port area; anchorage is prohibited in these areas. (See **207.200**, chapter 2, and chart 11368 for revetment areas and regulations.)

(176) **Bridges.**–Crescent City Connection Bridge (Business Route 90), a high-level fixed highway bridge connecting Algiers and New Orleans, about 0.7 mile above Canal Street, has a clearance of 150 feet over a central 750-foot width. The Huey P. Long Bridge, a combined highway (U.S. 90) and railroad bridge crossing the river 11 miles above Canal Street, has a clearance of 133 feet through the W span for a channel span width of 750 feet. A private fog signal is on the bridge. These are the only bridges over the Mississippi in the New Orleans vicinity. The other bridges and tunnels in the port are covered in the description of the respective waterways which they cross.

(177) **Cables.**–Overhead power cables with clearances of 155 feet and 176 feet cross the river just below Nine Mile Point, about 103.6 and 104.1 miles AHP, respectively.

(178) **Tides and Currents.**–A description of tides and currents is given under the general discussion of the Mississippi River at the beginning of this chapter.

(179) **Regulated Navigation Areas.**–The Mississippi River from 88 to 127 miles AHP is a regulated navigation area. (See **165.1 through 165.13 and 165.803**, chapter 2, for limits and regulations.)

(180) **Weather.**–The climate at New Orleans and the surrounding suburbs is influenced, in a large degree, by the many water surfaces provided by lakes and streams, and by the proximity to the Gulf of Mexico. Throughout the year, these water areas modify the relative humidity and temperature conditions, decreasing the range between the extremes; when S winds prevail, these effects are increased, imparting the characteristics of a marine climate. Relative humidities of less than 50 percent occur in each month of the year; however, they are less frequent in the summer months than in other seasons. During mid-June to mid-September, the prevailing SE to SW winds carry inland warm, moist air favorable for sporadic, often quite localized, development of thundershowers. In the New Orleans area, these showers tend to occur most frequently around 1300-1400, and keep the temperature from rising much above 90°F. At times, a thunderstorm will develop over Lake Pontchartrain in the early evening, and move over the city. Occasionally the pressure distribution changes to bring in a flow of hotter and drier air. However, there is only an average of about 71 days per year when the temperature rises to 90°F (32.2°C) or higher. From about mid-November to mid-March, the area is subjected alternately to tropical air and cold continental air in periods of varying length. About 80 percent of the December-February hourly temperatures range from 41°F to 69°F. The mean date of the first occurrence of 32°F or lower is about December 12, while the mean date of the last occurrence is about February 13. Between those dates, there is, on the average, more than 6 days out of 7 entirely above freezing, with some afternoons having temperatures in the seventies and eighties. The mean length of the freeze-free period is about 302 days and the average number of days with a recorded temperature below freezing is 13. The usual track of winter storms is to the N of New Orleans, but occasionally one moves into the area, bringing large and rather sudden drops in temperature, but the cold spells seldom last over 3 or 4 days. In about two-thirds of the years, one can expect the annual lowest temperature to be 24ºF or warmer, with some years entirely above freezing. The lowest recorded temperature was 7ºF on February 13, 1899, at Audubon Park while the coolest temperature on record at the airport is 11ºF recorded in December 1989. The average annual temperature at New Orleans is 68.7ºF with an average high of 77.8ºF and an average low of 59.1ºF. July is the warmest month with an average temperature of 82.4ºF while January is the coolest month with an average temperature of 52.8ºF. Each month, June through September, has had temperature at- or greater than 100ºF while each month, November through April, has had temperatures at- or below freezing. The warmest temperature on record at the airport is 102ºF recorded in August 1980. From December to May, the water of the Mississippi River is usually colder than the air temperature, favoring the formation of river fogs, particularly with weak S winds. The nearby lakes also serve to modify the extremes of temperature and to increase fogginess over narrow strips along the shores. From April through October, the occurrence of fog is not frequent enough to ordinarily consider them operationally significant. In other months, particularly in winter (December through February), the occurrences increase, with the greatest frequency in February. Visibility at times is reduced by smoke from the industrial plants along the river. Smoke, particularly during the fall and winter, also occurs when marshland areas are burned.

(181) A fairly definite rainy period is from mid-December to mid-March and convective activity is apparent during the summer months. Thunderstorms can be expected about 72 times each year with a pronounced peak in June, July, and August. About 30% of the annual rainfall of 61 inches occurs during this three-month period. Measurable precipitation occurs on about one-third of the days during the winter season and usually falls to the north of a warm front or a cold front which has stalled over the northern Gulf of Mexico. It is as apt to fall in one hour as another, generally slow, steady, and relatively continuous, often lasting for several days. The wettest month is July averaging 6.6 inches and October is the driest averaging 2.7 inches. Snowfall amounts are generally small, with the snow usually melting as it falls. The average annual snowfall total is less than one inch and the greatest 24-hour snowfall total is only 2.7 inches which occurred in December 1963. The pattern of spring rains is similar to that of winter, while fall rains are distributed in much the same manner as summer rains. April, May, October, and November are generally dry, but there have been some extremely heavy showers in those months.

(182) While thunder usually accompanies summer showers, thunderstorms with damaging winds are relatively infrequent. The most damaging thunderstorms are those which move over the city from Lake Pontchartrain, usually in connection with cold fronts and line squalls. Hail of a damaging nature seldom occurs, and tornadoes are extremely rare. Since 1900, the centers of three hurricanes have passed over the city and since 1950, 14 tropical cyclones have passed within 50 miles of New Orleans. New Orleans is in the belt where a mean recurrence interval of 50 years gives an extreme wind speed of 95 to 100 mph or more. The most recent significant storm to affect New Orleans was hurricane Elena in September 1985. Elena passed about 70 km NE of the

city with 60-knot winds. Hurricane Camille provided New Orleans with 75-knot gusts when it rammed Gulfport, MS in August 1969 and hurricane Betsy caused 90-knot winds when it passed about 70 km W of the city in September 1965.

(183) The lower Mississippi River floods result from runoff upstream. Rainfall within the State of Louisiana has little influence on these stages. The levees at New Orleans have not been overtopped in more than 100 years. If the water level in the river becomes dangerously high, the Bonnet Carre Spillway, some 33 miles above the city, may be opened to divert the floodwaters.

(184) The National Weather Service maintains an office in the Federal Building; **barometers** may be compared there or checked by telephone. (See appendix for address.)

(185) (See page T–7 for **New Orleans climatological table.)**

(186) **Pilotage** is discussed under the general description of the river at the beginning of this chapter.

(187) **Towage.–**Tugs up to 4,600 hp are available at New Orleans for towing and docking. (See detailed description at the beginning of this chapter.)

(188) **Quarantine** procedures are discussed at the beginning of this chapter. Numerous public and private hospitals are in New Orleans.

(189) **Agricultural quarantine** procedures are discussed at the beginning of this chapter.

(190) **Customs.–**New Orleans is a customs port of entry with a customhouse on Canal Street. Vessels are generally boarded by customs officers at berth; however, arrangements can be made for the officers to board vessels at any point within the port limits. The customhouse serves the area from the Mississippi River entrance to Reserve, a small town about 138.1 miles AHP.

(191) **Immigration.–**The U.S. Immigration and Naturalization Service maintains a district office at New Orleans. (See appendix for address.) Inspectors board vessels at anchor or alongside the wharves. Arrangements should be made through ships' agents.

(192) **Coast Guard.–New Orleans Coast Guard Air Station** is at the naval air station about 2.8 miles SW of Belle Chasse.

(193) **Harbor regulations.–**The navigation of vessels in the Mississippi River, the Inner Harbor Navigation Canal to its junction with the Mississippi River-Gulf Outlet Canal, and the Mississippi River-Gulf Outlet Canal are under the jurisdiction of the U.S. Coast Guard. The development, operation, and control of the Port of New Orleans is regulated by The Board of Commissioners of the Port of New Orleans.

(194) **Movement of vessels in vicinity of Algiers Point:**

(195) Traffic control in the river in the vicinity of Algiers Point is subject to regulations stated in **165.1 through 165.13, 165.803, and 165.810**, chapter 2. In addition to the traffic lights at Governor Nicolls Street Wharf and at Gretna, described in that regulation, there is a traffic light at **Westwego,** 6.5 miles above Canal Street, which indicates to downbound traffic whether the Gretna traffic control light, 1.7 miles above Canal Street, is red or green.

(196) At a conference of representatives of navigation interests in New Orleans, it was agreed that high stages on the Mississippi River require special precautionary measures in the operation of vessels in New Orleans Harbor, particularly in the vicinity of Algiers Point where high river stages produce strong currents and powerful shifting eddies.

(197) The following recommendations were made for the operation of vessels and other craft when the stage of the river is 10 feet or above on the Carrollton Gage. All underpowered vessels should be assisted by a tug around Algiers Point; and further, underpowered vessels should not leave the harbor unless they can clear Algiers Point during daylight. Terminal operators and fleet owners should observe extra precaution in the mooring of barges to prevent the possible breaking loose of such craft to the danger of all installations downstream.

(198) The attention of all navigation interests, masters, pilots, and operators is invited to the urgent necessity for observance of these policies and meticulous adherence to good seamanship and sound operating practice in order to minimize navigational hazards during the period of high stages of the river.

(199) **Note:** When emergency conditions exist due to the velocity of the flow of the Mississippi River in the vicinity of New Orleans, the Commander, Eighth Coast Guard District, will issue special orders and notices restricting the size and make up of tows, movement of vessels, and the use of anchorages.

(200) **Control of the Port of New Orleans:**

(201) The **Board of Commissioners of the Port of New Orleans,** generally known as the **Dock Board**, has full control of the port except for matters pertaining to the levees and the yacht harbor on Lake Pontchartrain, which are under control of the **Levee Board,** and the **New Orleans Public Belt Railroad,** which is a terminal railroad owned and operated by the city of New Orleans through the **Public Belt Railroad Commission.**

(202) The Dock Board consists of members selected by the Governor of the State of Louisiana from a list of nominees compiled by eighteen business and civic associations. The board is charged with the development, operation, and control of the Port of New Orleans and establishes rules and regulations for the various terminals and the part of the Inner Harbor Navigation Canal under its control.

(203) The Executive Port Director and General Manager is in charge of operations and is assisted by three Assistant Executive Port Directors and three Deputy Assistant Port Directors. About two-thirds of the improved wharf frontage is owned by the State of Louisiana and operated by the board. The office of the Dock Board and Superintendent of Docks is on Canal Street near the river, in the International Trade Mart Building.

(204) **Fire prevention.–**Smokestacks of vessels moored to the wharves and landings must be equipped with spark arrestors, and every precaution must be taken to avoid an issue of sparks. Smoking in the holds or on the decks of vessels, while loading or discharging cargo while alongside the wharves, is prohibited.

(205) **Extracts from the rules and regulations for the Inner Harbor Navigation Canal are as follows:**

(206) **General.–**No vessels shall berth at any wharf, landing or mooring, or move from one point to another in the canal, or load or unload cargo elsewhere than at a regularly established wharf, except by authority of the Superintendent.

(207) **Obstructing Navigation–Anchoring and Mooring.–**No vessel shall anchor in the channel of the canal or in the approaches thereto, except in case of distress or emergency or while waiting the opening of a drawbridge, and such stoppages shall be only for such periods as may be absolutely necessary by reason of such causes. Vessels moored at wharves, landings, clusters, etc., shall be so placed and tied up as not to interfere with safe passage of other vessels navigating the canal. No warp line shall be passed across the channel, wharf, or landing, so as to obstruct passage or to cause interference with the discharging of cargoes.

(208) Vessels shall not be berthed two abreast alongside any wharves, bulkheads, or clusters, except that small barges or other small craft may be moored two or more abreast when necessary

clearances for proper operation of the canal can be maintained, and permission of the Superintendent shall have been obtained.

(209) Vessels, lighters, barges, launches, other watercraft, timbers, rafts, or similar floating objects moored or tied to and alongside vessels, wharves, bulkheads, or clusters, shall be placed so as not to obstruct the channel, and shall be made fast securely at both ends to prevent swinging out or breaking loose, and shall display conspicuously suitable lights at night.

(210) Under no circumstances shall vessels or other watercraft be anchored or moored within 100 feet of the centerline of the Inner Harbor Navigation Canal channel as determined by the Engineering Department of the Board.

(211) In the event any vessel or other floating equipment, including any logs or lumber assembled in rafts or separated therefrom, or any large sinkable object on any such vessel shall sink, or in any manner obstruct navigation in the canal, the owner or agent of said vessel shall promptly remove same. In case the owner or agent fails for any cause to remove any such obstruction promptly upon demand, the Board may remove it or cause it to be removed at the cost, risk, and expense of said vessel, its owner, or agent.

(212) **Responsibility for Vessel.–**Masters of vessels in Canal waters shall be responsible for safe handling and proper navigation of vessels under their charge. Masters of vessels shall abide by the rules and regulations of the canal, as interpreted by the Superintendent.

(213) No vessel, even if moored and tied up, shall be left without sufficient crew to care for it properly. Lights shall be displayed at all times, both when tied up and navigating the canal, in accordance with the provisions of the Inland Rules.

(214) The dropping of anchors, weights, or other ground tackle, within the areas occupied by submarine cables or pipe crossings, is prohibited. Such crossings will be marked ordinarily by signboards on each bank.

(215) The master or other party in charge of the movement of an oceangoing vessel or craft of unusual height, including piledrivers, derricks, etc., shall before passing through the canal bridge openings, make certain that such craft and every part of the superstructure or any equipment or cargo beyond the gunwales will clear all parts of the bridge structure.

(216) As it may see fit, the Board reserves the right to place its own pilot on any vessel passing through the canal. The canal pilot will serve only in an advisory capacity.

(217) Vessels shall exercise due care in navigating the canal, as to **speed** and otherwise, in order to avoid damage to the canal structures or equipment, or to other vessels.

(218) The making of trial runs in the canal by speed boats and other such motorcraft is prohibited. Under no circumstances shall any watercraft navigate in the canal at a **speed exceeding 10 m.p.h.**

(219) Vessels shall be liable for any damage to canal structures, equipment, and/or appurtenances while passing through the canal.

(220) The Board has noted that some masters ground their vessels bow-on while waiting lockage in the forebay of the lock. As such contact endangers the levees, mariners are directed to discontinue the practice.

(221) Steel-pile dolphins and other facilities are on the E and W banks downstream from the lock forebay to provide "ready" mooring areas for barges and tows awaiting lockage. These craft are under the direction and control of the lockmaster.

(222) A port-wide radiotelephone system using VHF-FM channel 16 and 67 connects all terminals, bridges, tugs, pilots, and the yacht harbor with the Harbor Police.

(223) **Wharves.–**The Port of New Orleans has more than 100 berths and wharves located on both sides of the Mississippi River, the Inner Harbor Navigation Canal, and the Mississippi River-Gulf Outlet Canal. More than 100 additional facilities for small vessels and barges are on Harvey Canal, Algiers Canal, Michoud Canal, and Bayou Barataria. Only the deep-draft facilities are described. For a complete description of the port facilities refer to Port Series No. 20, published and sold by the U.S. Army Corps of Engineers. (See appendix for address.) The alongside depths are reported; for information on the latest depths contact port authorities or the private operators. All the facilities described have direct highway connections, and most have plant trackage with direct railroad connections. Water is available at most of the wharves, but electrical shore power connections are available at only about 25 percent of the wharves. General cargo at the port is usually handled to and from vessels by ships' tackle. Cargo on the wharves, particularly the public facilities, is handled by a wide range of equipment furnished by various stevedoring companies. Special handling equipment, if available, is mentioned in the description of the particular facility. Shore-based hoisting equipment with capacity up to 300 tons is available to the public at New Orleans; floating cranes and derricks up to 700-ton capacity are available.

(224) Of the facilities described, about one-half are for public use operated by the Board of Commissioners of the Port of New Orleans. They operate general and containerized cargo wharves, heavy lift and bulk material handling wharves, and a grain elevator. Nearly half of the private facilities are for handling petroleum and chemical products. Most of the rest are for handling general, bulk, and liquid cargo.

(225) **Facilities on N side of river from Meraux to Inner Harbor Navigation Canal:**

(226) Murphy Oil Corp. Wharf (29°55'33"N., 89°56'45"W.): 757 feet of berthing space at the face of six offshore breasting platforms; 40 feet alongside; 205 feet of barge berthing space at the rear of the lower platforms; 35 feet alongside; deck height, 24 feet; receipt and shipment of crude oil and petroleum products by tanker and barge; bunkering tankers; fueling towboats; owned and operated by Murphy Oil Corp.

(227) Tenneco Crude Terminal Wharf (29°55'33"N., 89°57'54"W.): 580 feet of berthing space with dolphins; 35 feet alongside; deck height, 21 feet; receipt of crude oil by tanker; owned and operated by Tenneco Oil Co.

(228) Exxon Co. U.S.A., Chalmette Terminal, Tanker Dock (29°55'38"N., 89°58'12"W.): 310 feet of berthing space with dolphins; 25 feet alongside; deck height, 20 feet; receipt and shipment of petroleum by barge; bunkering vessels; owned and operated by Exxon Co. U.S.A.

(229) Tenneco Wharf No. 4 (29°55'45"N., 89°58'40"W.): 390 feet of berthing space with dolphins; 42 to 50 feet alongside; deck height, 27 feet; shipment of petroleum products and petrochemicals by tanker and barge; receipt of crude oil; owned and operated by Tenneco Oil Co.

(230) Chalmette Slip, Dock No. 2 (29°56'33"N., 89°59'17"W.): E side of slip; 1,600 feet of berthing space; 30 feet alongside; deck height, 20 feet; 75,000 square feet of covered storage; 120,000 square feet open storage; receipt and shipment of general cargo; receipt of aluminum ingots; shipment of coke and ma-

chinery; owned by Southern Railway System and operated by Kaiser Aluminum and Chemical Corp.

(231) Chalmette Slip, Dock No. 1: W side of slip; 1,280 feet of berthing space; 30 feet alongside; deck height, 20 feet; 84,400 square feet of covered storage; receipt and shipment of lumber; receipt of green coke and shipment of calcined coke; owned by Southern Railway System and operated by Robinson Lumber Co. and Bulk Material Transfer, Inc.

(232) Amstar Corp. Wharf (29°56'37"N., 90°00'05"W.): 1,115 feet of berthing space; 45 feet alongside; deck height 22 feet; two 10-ton electric gantry cranes, 36-inch electric belt-conveyor system, with bulk sugar unloading rate of 500 tons per hour; 5-ton electric grantry hoist for loading vessels; 60,000 square feet covered storage; receipt of raw sugar and shipment of refined sugar; owned and operated by Amstar Corporation.

(233) Alabo Street Wharf (29°57'10"N., 90°01'06"W.): 1,316-foot face; 36 feet alongside; deck height, 20 feet; 126,000 square feet covered storage at wharf, 15 acres open storage; receipt and shipment of general cargo; owned and operated by Board of Commissioners.

(234) **Facilities on E side of Inner Harbor Navigation Canal:**

(235) Southern Scrap Material Co. Wharf (29°59'00"N., 90°01'13"W.): 451-foot face; 32 feet alongside; deck height, 7 feet; one 50-ton and two 45-ton electric gantry cranes; receipt of scrap metal by barge, shipment of scrap metal and heavy machinery by ship and barge; owned by Board of Commissioners and operated by Southern Scrap Material Co., Ltd.

(236) Dwyer Road Wharf (30°01'14"N., 90°01'49"W.): 340 feet of berthing space with dolphins; 22 feet alongside; deck height, 7 feet; 20,000 square feet covered storage, open storage for 210 containers; receipt and shipment of general and roll-on/roll-off cargo; owned by Board of Commissioners and operated by Armasal Lines.

(237) United States Gypsum Co. Wharf (30°01'18"N., 90°01'50"W.): 362-foot face, 25 feet alongside; 240 feet of barge berthing space at rear of face, 12 feet alongside; deck height, 7½ feet; 54-inch, electric, belt-conveyor system leads from wharf to gypsum storage bins having a capacity of 60,000 tons; 24-inch, radial, belt-conveyor system leads from barge berths to open storage area for 16,000 tons of shell; receipt of gypsum rock by vessel, receipt of shell by barge; owned by Board of Commissioners and operated by United States Gypsum Co.

(238) Morrison Yard Lower Wharf (30°01'30"N., 90°01'54"W.): 550 feet of berthing space with dolphins; 28 to 30 feet alongside; deck height, 7 feet; 24,000 square feet covered storage, 6 acres open storage; receipt and shipment of roll-on/roll-off cargo; owned by Board of Commissioners and operated by Coordinated Caribbean Transport, Inc.

(239) NL Baroid Industrial Canal, Ship Wharf (30°01'47"N., 90°01'58"W.): 490 feet of berthing space with dolphins; 23 feet alongside; deck height, 6 feet; 30-inch, electric, belt-conveyor system leads from wharf to open storage area for 60,000 tons of barite ore; receipt of barite; owned by Board of Commissioners and operated by NL Baroid, NL Industries, Inc.

(240) **Facilities on W side of Inner Harbor Navigation Canal:**

(241) Magcobar Minerals Unloading Dock (30°01'34"N., 90°01'59"W.): 500 feet of berthing space; 30 feet alongside; deck height, 6 feet; floating crane furnished by stevedoring company unloads vessels; open storage for 80,000 tons of barite ores; receipt of barite; owned by Board of Commissioners and operated by Magcobar Minerals, Division of Dresser Industries, Inc.

(242) France Road Terminal, Berth No. 6 Roll-on/Roll-off Ramp (29°59'36"N., 90°01'24"W.): 300 feet of berthing space with dolphins on N side; 30 feet alongside; S side of ramp contiguous with France Road Terminal, Berth No. 6; deck height, 4 to 10 feet; 100,000 square feet covered storage; 30-ton mobile crane; receipt and shipment of roll-on/roll-off cargo; owned by Board of Commissioners and operated by New Orleans Marine Contractors.

(243) France Road Terminal, Berths Nos. 5 and 6: adjacent S of Roll-on/Roll-off Ramp; 1,585-foot face; 30 to 36 feet alongside; deck height, 10 feet; 31,000 square feet covered storage, 85 acres open storage; two 40-ton container cranes; receipt and shipment of containerized cargo; owned by Board of Commissioners and operated by New Orleans Marine Contractors.

(244) France Road Terminal, Berth No. 4: adjacent S of Berth No. 5; 700-foot face; 30 to 36 feet alongside; deck height, 10 feet; 60,000 square feet covered storage, open storage for 739 containers; use of containers from Berths Nos. 5 and 6; receipt and shipment of containerized cargo; owned by Board of Commissioners and operated by Puerto Rico Marine Management, Inc.

(245) France Road Terminal, Berth No. 1 (29°58'58"N., 90°01'19"W.): 830 feet of berthing space; 35 to 38 feet alongside; deck height, 11 feet; two 30-ton container cranes; open storages for 1,100 containers; receipt and shipment of containerized cargo; owned by Board of Commissioners and operated by Sea-Land Service, Inc.

(246) Florida Avenue Wharf (29°58'45"N., 90°01'30"W.): 482-foot face; 30 feet alongside; deck height, 9 feet; 57,600 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Uiterwyk Corp.

(247) Florida Avenue, Roll-on Roll-off Facility Wharf (29°58'47"N., 90°01'25"W.): 482-foot face, 20 feet alongside; deck height, 5 feet; 5 acres open storage; vessels dock at Florida Avenue Wharf and load and unload roll-on roll-off general cargo by stern ramps; owned and operated by Board of Commissioners.

(248) Galvez Street Wharf (29°58'24"N., 90°01'29"W.): 2,380-foot face; 2,470 feet with dolphins; 35 feet alongside; 265-foot N side, 30-20 feet alongside; deck height, 9 feet; 357,000 square feet of covered storage; receipt and shipment of general and containerized cargo; owned by board of Commissioners and operated by several companies.

(249) **Facilities on the Mississippi River-Gulf Outlet Canal:**

(250) Jourdan Road Terminal, Berths Nos. 4 and 5 (29°59'45"N., 90°00'55"W.): 1,400-foot face; 36 feet alongside; deck height, 10 feet; 144,000 square feet covered storage, 10 acres open storage; receipt and shipment of general and containerized cargo; owned and operated by Board of Commissioners; under construction in 1981.

(251) Public Bulk Terminal Wharf: N side of canal, 1.6 miles E of junction with Inner Harbor Navigation (Industrial) Canal; face 2,235 feet of berthing space with dolphins; 36 feet alongside; 1,808 feet of barge berthing space at rear of face, 20 feet alongside; deck height, 13 feet; covered storage tanks for 30,000 tons of bulk materials, 236,000 square feet of open storage for bulk materials; one electric, traveling, combination vessel and barge-loading bridge tower served by electric, belt-conveyor system with 2,000 to 3,000 tons per hour loading rate; three electric, traveling, unloading towers serving one 42-inch and two 60-inch

electric belt conveyors with a combined unloading rate of 3,350 tons per hour; receipt and shipment of various dry bulk commodities including: coke, alumina, manganese, sugar, barites, salt, phosphate, ammonium sulphate, iron ore, zinc, petroleum pitch, gypsum, coal, fluorspar, urea, steel, ferrochrome, pig iron, bauxite, copper, and potash; owned by Board of Commissioners, and operated by Ryan-Walsh Stevedoring Co., Inc.

(252) **Facilities on Michoud Canal:**

(253) Dundee Unloading Dock: E side of the canal 0.6 mile above the entrance; 175-foot face; 30 feet alongside; deck height, 2 feet; receipt of bulk cement; owned and operated by Dundee Cement Co.

(254) Lone Star Industries Dry Bulk Materials Wharf: E side of the canal 0.8 mile above the entrance; 840 feet of berthing space with dolphins; 34 feet alongside; deck height, 10 feet; gantry crane with unloading rate of 3,000 tons per hour; receipt of dry bulk materials including coal and aragonite; owned and operated by Lone Star Industries, Inc.

(255) Air Products and Chemicals Ammonia Loading Dock: E side of the canal 1.3 miles above the entrance; 200 feet of berthing space with dolphins; 35 feet alongside; deck height, 10 feet; shipment of anhydrous ammonia; owned and operated by Air Products and Chemicals, Inc.

(256) **Facilities on the N side of river from Inner Harbor Navigation Canal W to Southport:**

(257) Poland Avenue Wharf, Berths Nos. 4 and 5 (29°57'32"N., 90°02'07"W.): 932-foot face; 40 to 42 feet alongside; deck height, 22 feet; 57,000 square feet of covered storage; receipt and shipment of general cargo; owned by U.S. Government and operated by Waterman Steamship Corp.

(258) Pauline Street Wharf (29°57'34"N., 90°02'17"W.): 581-foot face; 40 to 42 feet alongside; deck height, 22 feet; 63,500 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Waterman Steamship Corp.

(259) Congress Street Wharf: adjacent W of Pauline Street Wharf; 968 feet of berthing space; 40 to 42 feet alongside; deck height, 22 feet; 90,800 square feet of covered storage, 50,000 square feet of paved open storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Waterman Steamship Corp. and Atlantic and Gulf Stevedores, Inc.

(260) Desire Street Wharf: adjacent W of Congress Street Wharf; 440-foot face; 35 feet alongside; deck height, 22 feet; 100,760 square feet of covered storage; two floating cranes to 75 tons; three floating cranes, each with grab bucket; receipt and shipment of general cargo and heavy-lift items; owned by Board of Commissioners and operated by Atlantic and Gulf Stevedores, Inc., Waterfront Transportation Corp., and Board of Commissioners.

(261) Piety Street Wharf: adjacent W of Desire Street Wharf; 523-foot face; 35 feet alongside; deck height, 21 feet; 46,000 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Valor Stevedoring Co.

(262) Louisa Street Wharf: adjacent W of Piety Street Wharf; 1,061 feet of berthing space; 34 feet alongside; deck height, 21 feet; 31,000 square feet of covered storage; 58,000 square feet of paved open storage; molasses storage tanks with capacity of 4,200,000 gallons; receipt and shipment of general and containerized cargo and heavy items, receipt of molasses; owned by Board of Commissioners and operated by several companies.

(263) Press Street Wharf: adjacent W of Louisa Street Wharf; 947 feet of berthing space; 40 feet alongside; deck height, 21 feet; 48,000 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by American Oceanic Shipping Corp.

(264) Mandeville Street Wharf: adjacent W of Press Street Wharf; 1,121-foot face; 35 feet alongside; deck height, 22 feet; 97,000 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Hellenic Line, Ltd.

(265) Esplande Avenue Wharf: adjacent W of Mandeville Street Wharf; 584-foot face; 35 feet alongside; deck height, 22 feet; 66,000 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Sanko-Kisen (U.S.A.) Corp.

(266) Governor Nicholls Street Wharf: adjacent SW of Esplanade Street Wharf; 1,211-foot face; 40 feet alongside; deck height, 22 feet; 100,000 square feet of covered storage, 14,400 square feet of paved open storage; receipt and shipment of general and containerized cargo; owned by Board of Commissioners and operated by several companies.

(267) Bienville Street Wharf (29°57'08"N., 90°03'46"W.): 1,624 feet of berthing space; 35 feet alongside; deck height, 22 feet; 145,000 square feet of covered storage, 50,000 square feet of paved open storage; receipt and shipment of general and containerized cargo; owned by Board of Commissioners and operated by TTT Stevedores of Louisiana, Inc., and Compania Anonima Venezolana De Navegacion.

(268) International Rivercenter, Cruise Ship Terminal Wharf (29°56'48"N., 90°03'43"W.): 840 feet of berthing space; 35 feet alongside; deck height, 22 feet; cruise ship passenger terminal; owned by Board of Commissioners and operated by International Rivercenter.

(269) Poydras Street Wharf (29°56'42"N., 90°03'43"W.): 530-foot face; 35 feet alongside; deck height, 22 feet; receipt and shipment of general cargo; owned and operated by Board of Commissioners.

(270) Julia Street Wharf: adjacent S of Poydras Street Wharf; 1,189-foot face; 35 feet alongside; deck height, 22 feet; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Board of Commissioners and Cooper Stevedoring Co., Inc.

(271) Erato Street Wharf: adjacent S of Julia Street Wharf; 1,067-foot face; 35 feet alongside; deck height, 22 feet; 54,000 square feet open storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Board of Commissioners and Gulf Coast Shipping Corp.

(272) Thalia Street Wharf: adjacent S of Erato Street Wharf; 860-foot face; 35 feet alongside; deck height, 22 feet; 109,000 square feet of covered storage; 72,000 square feet of open storage; receipt and shipment of general cargo; owned by Board of Commissioners, operated by Coast-Wide Terminals, Inc.

(273) Robin Street Wharf: adjacent S of Thalia Street Wharf; 1,216-foot face; 35 feet alongside; deck height, 22 feet; 157,000 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Coast-Wide Terminals, Inc.

(274) Orange Street Wharf: adjacent S of Robin Street Wharf; 1,020 feet of berthing space; 30 feet alongside; deck height, 22

feet; 133,300 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Board of Commissioners and Coast-Wide Terminals, Inc.

(275) Market Street Wharf (29°55'44"N., 90°03'47"W.): 1,015 feet of berthing space; 30 feet alongside; deck height, 22 feet; 119,000 square feet of covered storage; receipt and shipment of general cargo and soybean meal; owned by Board of Commissioners and operated by Board of Commissioners and Ryan-Walsh Stevedoring Co., Inc.

(276) Celeste Street Wharf: adjacent SW of Market Street Wharf; 1,200 feet of berthing space; 35 feet alongside; deck height, 22 feet; 129,600 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Board of Commissioners and Hansen and Tidemann, Inc.

(277) St. Andrew Street Wharf: adjacent SW of Celeste Street Wharf; 1,598-foot face; 35 feet alongside; deck height, 22 feet; 146,000 square feet of covered storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by various companies.

(278) First Street Wharf (29°55'18"N., 90°04'21"W.): 1,275 feet of berthing space; 35 feet alongside; deck height, 22 feet; 105,000 square feet of covered storage, 1 acre paved open storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by E.S. Binnings, Inc.

(279) Third Street Wharf: adjacent SW of First Street Wharf; 360-foot face; 35 feet alongside; deck height, 21 feet; 49,000 square feet of covered storage; receipt and shipment of general cargo; owned and operated by Board of Commissioners.

(280) Washington Avenue Wharf: adjacent SW of Third Street Wharf; 871-foot face; 32 feet alongside; deck height, 22 feet; 122,000 square feet of covered storage; receipt and shipment of general cargo; shipment of fertilizer; owned by Board of Commissioners and operated by Board of Commissioners and Atlantic and Gulf Stevedores, Inc.

(281) Seventh Street Wharf: adjacent SW of Washington Avenue Wharf; 1,200 feet long; 32 feet alongside; deck height, 20½ feet; 121,000 square feet of covered storage; receipt and shipment of general, roll-on/roll-off, LASH/SEABEE, and containerized cargo; owned by Board of Commissioners and operated by Gulf and Southern Terminal Corp.

(282) Harmony Street Wharf: adjacent SW of Seventh Street Wharf; 1,089 feet of berthing space; 32 feet alongside; deck height, 20½ feet; 91,000 square feet of covered storage, 3 acres of open storage; receipt and shipment of general cargo; owned by Board of Commissioners and operated by T. Smith and Son, Inc.

(283) Louisiana Avenue, Wharves E, F, and G (29°54'58"N., 90°05'18"W.): 1,590 feet of berthing space; 30 feet alongside; deck height, 24 feet; 36,000 square feet covered storage, 6 acres open storage; receipt and shipment of general and containerized cargo; owned by Board of Commissioners and operated by Daiichi Chuo Kisen Kaisha Tokyo.

(284) Milan Street Wharf (29°54'49"N., 90°05'52"W.): 1,270 feet of berthing space; 30 feet alongside; deck height, 24 feet; 80,300 square feet covered storage; receipt and shipment of general and heavy-lift cargoes; owned by Board of Commissioners and operated by Delta Steamship Lines, Inc.

(285) Napoleon Avenue Open Wharf (29°54'45"N., 90°06'04"W.): 375-foot face; 665 feet with dolphins; 30 feet alongside; deck height, 24 feet; 75,500 square feet open storage; receipt and shipment of general and containerized cargo, heavy items, and bulk and packaged soybean oil; owned by Board of Commissioners and operated by Delta Steamship Lines, Inc.

(286) Napoleon Avenue Wharf C: adjacent W of Open Wharf; 1,000-foot face; 30 feet alongside; deck height, 24 feet; 150,000 square feet of covered storage; warehouse building, vacuum fumigation plant, lumber drying kiln; open storage area and other facilities of Foreign Trade Zone No. 2 located in rear of transit shed; receipt and shipment of general cargo; owned by Board of Commissioners and operated by Delta Steamship Lines, Inc.

(287) Napoleon Avenue Wharves B and A: adjacent W of Wharf C; 775 and 1,101 feet of berthing space; 30 to 35 feet alongside; deck height, 24 feet; 164,000 square feet of covered storage, 7 acres open storage; receipt and shipment of general and containerized cargo, receipt of steel products; owned by Board of Commissioners and operated by Board of Commissioners and Strachan Shipping Co.

(288) Public Grain Elevator of New Orleans Terminal: adjacent W of Napoleon Avenue Wharf A; 1,869 feet of ship berthing space, 35 feet alongside; 778 feet of barge berthing space, 20 feet alongside; deck height, 24 feet; grain elevator has a capacity of over 7 million bushels; thirty-two 18-inch loading spouts having a combined vessel loading rate of 80,000 bushels per hour; three marine legs serving electric belt-conveyor system having a barge unloading rate, for each marine leg, of 30,000 bushels per hour; receipt of grain, meal, and pellets by barge; shipment of grain, meals, and pellets by vessel and barge; owned by Board of Commissioners and operated by Public Grain Elevator of New Orleans, Inc.

(289) Nashville Avenue Wharf (29°54'48"N., 90°07'30"W.): 2,759 feet of berthing space; 35 feet alongside; deck height, 22 feet; 567,000 square feet of covered storage, 3½ acres open storage; receipt and shipment of general and containerized cargo and heavy-lift items; owned by Board of Commissioners and operated by Lykes Brothers Steamship Co., Inc., and J. Young and Co., Inc.

(290) Henry Clay Avenue Wharf: adjacent W of Nashville Avenue Wharf; 842 feet of berthing space; 35 feet alongside; deck height, 22 feet; 63,000 square feet of covered storage, about 5 acres open storage; receipt and shipment of general and containerized cargo and heavy items; owned by Board of Commissioners and operated by Lykes Brothers Steamship Co., Inc.

(291) **Facilities on S side of river from Algiers Alternate Route W to Avondale:**

(292) Perry Street Wharf (29°56'02"N., 90°03'19"W.): 1,100 feet of berthing space with dolphins; 50 feet alongside; deck height, 24½ feet; 120,000 square feet of covered storage; receipt and shipment of general and containerized cargo, mooring LASH and SEABEE vessels; owned by Board of Commissioners and operated by TTT Stevedores of Louisiana, Inc.

(293) Southern Pacific Transportation Co. Molasses Wharf (29°55'21"N., 90°03'43"W.): 500 feet of berthing space; 28 to 29 feet alongside; deck height, 20 feet; pipelines lead from wharf to molasses storage tanks in rear; receipt and shipment of molasses; owned by Southern Pacific Transportation Co., and operated by various molasses companies.

(294) Publicker Chemical Corp. Wharf (29°55'15"N., 90°03'49"W.): 87-foot face, 180 feet with dolphins; 30 feet alongside; deck height, 20 feet; pipelines lead from wharf to alcohol storage tanks in rear; receipt and shipment of alcohol; owned and operated by Publicker Chemical Corp.

(295) BP North America Trading Wharf (29°54'59"N., 90°04'15"W.): 900 feet of berthing space with platforms; 45 to 55 feet alongside; deck height, 3 feet; receipt and shipment of petroleum products; bunkering vessels; owned and operated by BP North America Trading Inc.

(296) Delta Commodities Terminal, Wharf No. 3 (29°54'39"N., 90°05'15"W.): 270 feet of berthing space with dolphins; 38 feet alongside; deck height, 24 feet; receipt and shipment of miscellaneous bulk liquids; owned and operated by Delta Commodities, Inc.

(297) Delta Commodities Terminal, Wharf No. 2 (29°54'37"N., 90°05'21"W.): 450 feet of berthing space with dolphins; 38 feet alongside; deck height, 24 feet; pipelines lead from wharf to storage tanks; receipt and shipment of miscellaneous bulk liquids; owned and operated by Delta Commodities, Inc.

(298) Delta Commodities Terminal, Wharf No. 1 (29°54'36"N., 90°05'27"W.): 370 feet of berthing space with dolphins; 32 feet alongside; deck height, 20 feet; pipelines lead from wharf to storage tanks in rear; receipt and shipment of bulk liquids including methanol and petrochemicals; owned and operated by Delta Commodities, Inc.

(299) Texaco Wharf (29°54'22"N., 90°06'08"W.): 746 feet of berthing space with dolphins; 34 feet alongside; deck height, 18 feet; receipt and shipment of petroleum products; loading mid-stream fueling barges and barges for bunkering vessels at berth, fueling tugs; owned and operated by Texaco, Inc.

(300) Amerada Hess Corp., No. 1 Wharf (29°54'20"N., 90°06'18"W.): 320 feet of berthing space with dolphins; 40 feet alongside; receipt and shipment of petroleum products by barge; bunkering vessels and loading barges for bunkering vessels at berth; owned and operated by Amerada Hess Corp.

(301) Gold Bond Building Products Wharf (29°55'15"N., 90°08'31"W.): 700 feet of berthing space with dolphins; 29 feet alongside; deck height, 23 feet; open storage area for 75,000 tons of gypsum rock; self-unloading vessels discharge into a hopper serving a covered 36-inch, electric, belt-conveyor system with unloading rate of 800 tons per hour; receipt of gypsum rock; receipt and shipment of bulk liquids; owned by Gold Bond Building Products and operated by Gold Bond Building Products and Paktank Louisiana, Inc.

(302) Continental Grain Co. Westwego Elevator Wharf (29°56'18"N., 90°08'32"W.): 1,800-foot face; 40 feet alongside; deck height, 22 feet; 3¼-million-bushel grain elevator; six vessel-loading spouts can load two vessels at about 100,000 bushels per hour each; receipt and shipment of grain; owned by Board of Commissioners and operated by Continental Grain Co.

(303) International–Matex Tank Terminals, Docks No. 2 and No. 1 (29°55.3'N., 90°12.0'W.) (chart 11370): 250 feet of berthing space with dolphins at Dock No. 2; 300 feet of berthing space with dolphins at Dock No. 1; 40 feet alongside each dock; deck heights, 6 feet at Dock No. 2 and 7 feet at Dock No. 1; receipt and shipment of petroleum products, liquid chemicals and petrochemicals, lard, and vegetable, fish, and tung oils; owned and operated by International–Matex Tank Terminals, Ltd.

(304) Point Landing Fuel Corp. Wharf (29°55.3'N., 90°12.1'W.) (chart 11370): 215 feet of berthing space with dolphins; 60 feet alongside; deck height, 8 feet; receipt and shipment of petroleum products, fueling various types of vessels; mooring mid-stream fueling barge; owned and operated by Point Landing Fuel Corp.

(305) **Supplies.–**An unlimited supply of purified river water is available at nearly all piers and wharves. This water, while excellent for drinking purposes, contains a small percentage of sulfate which causes some scale when used in stationary boilers. Several concerns furnish bunker oil from tank barges to vessels alongside the wharves. The bunkering capacity ranges from 1,000 to 3,500 barrels per hour. Bunker C and diesel oil can be obtained at a number of oil terminals on both sides of the river. Marine supplies of all kinds are obtainable, and ice and provisions are plentiful.

(306) **Repairs.–**New Orleans has numerous commercial plants which can handle vessels for underwater repairs. Most plants have equipment at wharves for making repairs above the waterline, or portable equipment for working on vessels anywhere in the harbor. The largest floating drydock, on the E side of the river about 1.5 miles above Huey P. Long Bridge, has a capacity of 81,000 tons, a length of 900 feet over the keel blocks, and a maximum clear width of 220 feet. It can lift vessels up to 906 feet long. Also available are numerous other floating drydocks, small graving docks, and marine railways. The largest marine railway, at Braithwaite, about 80.7 miles AHP, has a capacity of 2,000 tons and can handle vessels up to 300 feet long. Marine repair plants are operated in connection with drydocks, the larger plants having well-equipped shops and other facilities necessary for complete repairs to wooden or steel vessels. A large shipbuilding plant at Avondale builds all types of vessels up to 900 feet long.

(307) **Salvage facilities.–**Practically any equipment necessary for heavy salvage work at sea or in port is procurable at New Orleans. This includes floating derricks, dredges, barges, pumps, deep-sea divers and diving equipment, and ground tackle.

(308) **Communications.–**New Orleans is the terminus for six trunkline railroads including the Illinois Central Gulf Railroad, the Seaboard System Railroad, the Missouri Pacific Railroad, the Southern Railway System, Southern Pacific Lines, and Kansas City Southern Lines. The New Orleans Public Belt Railroad is a city-owned switching railroad that expedites the handling of rail freight in the port. About 100 shipping lines operate on regular schedules out of the port. Coastwise service and intracoastal service reaches all important Gulf, Atlantic, and Pacific coast ports, and foreign service includes all world ports, particularly West Indian, Caribbean, the Panama Canal, Central and South American, European, West, South, and East African, and Far Eastern ports.

(309) Inland barge lines operate on the Mississippi River and its tributaries as far as Minneapolis and St. Paul on the Mississippi, and Chicago on the Illinois River, Kansas City on the Missouri River, and Pittsburgh on the Ohio River. There is also barge-line service to Mobile and to Port Birmingham, the port for Birmingham, Ala., on Black Warrior River. The barge-line terminals are on the Inner Harbor Navigation Canal, just above the locks and on both banks of the river above and below the city. There are inside freight routes on the Intracoastal Waterway out of New Orleans E to Mobile, Pensacola, Panama City, and Apalachicola, and W to New Iberia, Port Arthur, Galveston, Houston, Texas City, Port Lavaca, Corpus Christi, Port Mansfield, and Brownsville.

(310) New Orleans International Airport (Moisant Field) about 12.7 miles NW of the center of the city is served by several airlines, which offer scheduled service to all parts of the country and overseas destinations. New Orleans Lakefront Airport is on Lake Pontchartrain on the E side of the N end of the Inner Harbor Navigation Canal. Alvin Callender Field is a naval reserve training facility on the S side of the river E of Algiers.

(311) Radiotelephone service is available through the New Orleans Marine Operator.

(312) **Small-craft facilities.–**Most small-craft facilities are on the canals inside the locks from the river, at Chef Menteur, or at the Municipal Yacht Basin and Orleans Marina at the yacht harbor, about 4.6 miles W of the Inner Harbor Navigation Canal, on Lake Pontchartrain. Covered and open berths with electricity for over 800 craft up to 100 feet long are available at the yacht harbor. Two yacht clubs, several boatyards, and service wharves in the yacht harbor have gasoline, diesel fuel, water, ice, provisions, marine supplies, and ramps. Marine lifts and cranes can lift out craft to 35 tons for hull and engine repairs, or dry open or covered storage. Electronic repairs can be made. Fuel, water, and supplies are also available on the Inner Harbor Navigation Canal, Harvey Canal, and on the Algiers Alternate Route of the Intracoastal Waterway.

(313) **Charts 11369, 11352, 11370, 11354.**–Above New Orleans, the Mississippi River is used by oceangoing vessels to Baton Rouge, about 135 miles above Canal Street.

(314) **Channels.–**The river channel between New Orleans and Baton Rouge is for the most part deep and clear. However, at low river stages, there are sections of the river that have been improved by dredging to accommodate deep-draft vessels. These sections are called crossings. **Mississippi River crossings** number 13 in all and are at:

(315) Fairview, 114.8 miles AHP;

(316) Belmont, Lower, 152.3 miles AHP;

(317) Belmont, Upper, 154.2 miles AHP;

(318) Rich Bend, 156.4 miles AHP;

(319) Smoke Bend, 174.4 miles AHP;

(320) Philadelphia, 182.1 miles AHP;

(321) Alhambra, 189.3 miles AHP;

(322) Bayou Goula, 197 miles AHP;

(323) Granada, 203 miles AHP;

(324) Medora, 211.3 miles AHP;

(325) Sardine Point, 218.9 miles AHP;

(326) Red Eye, 223.2 miles AHP;

(327) Baton Rouge, 230.7 miles AHP.

(328) Federal project depth for the crossings is 45 feet to mile 181 AHP, thence 40 feet to Baton Rouge. In 1980, the U.S. Army Corps of Engineers reported that the Upper and Lower Belmont crossings are maintained yearly, on an alternating basis, according to the flow of the river currents. Deep-draft vessels are advised to contact the New Orleans District Office, Corps of Engineers, for the preferred Belmont crossing and for the latest controlling depths of all the crossings; the office is at the foot of Prytania Street, New Orleans; telephone 504-865-1121. Lighted ranges mark the centerline of the channel at the crossings. In some cases the channel edges are marked by lighted and unlighted buoys which are maintained only at low river stages.

(329) Buoys are also maintained at low river stages at Bonnet Carre Point Bend, Caliborne Island Bend, Plaquemine Bend, Manhac Bend, and Missouri Bend. Both river banks are marked by lights at critical places on the river and at the bends.

(330) **Bulletin boards** showing the river stage above normal low river are maintained at New Orleans on the Corps of Engineers Wharf, 102.4 miles AHP; at College Point, 157.1 miles AHP; and on the W bank at the entrance to Port Allen Lock, 228.1 miles AHP.

(331) **River gages** are maintained at New Orleans, 102.8 miles AHP; Bonnet Carre, 127.1 miles AHP; Reserve, 138.7 miles AHP; Donaldsonville, 175.4 miles AHP; and Baton Rouge 228.4 miles AHP.

(332) **Anchorages.**–There are numerous designated anchorages on both sides of the river between New Orleans and Baton Rouge. Temporary anchorages may be prescribed by the Commander, Eighth Coast Guard District and published in the Local Notice to Mariners. (See **110.1 and 110.195**, chapter 2, for anchorage limits and regulations.)

(333) **Dangers.–**Logs and other floating debris are likely to be encountered in the river at all times. Operators of small craft are advised to maintain a sharp lookout. Night travel by small craft is not recommended because of the hazard of floating obstructions.

(334) **Ferries.**–Vehicular ferries cross the river at Destrehan, 120.5 miles AHP; Reserve, 138 miles AHP; Lutcher, 147.4 miles AHP; White Castle, 191.2 miles AHP; and Plaquemine, 207.7 miles AHP. A passenger ferry crosses the river at Norco, 126 miles AHP.

(335) **Bridges**.–High-level highway bridges with a minimum clearance of 125 feet cross the river above New Orleans at Luling, 121.8 miles AHP; Wallace, 146.1 miles AHP; Union, 167.4 miles AHP; and Baton Rouge, 229 mile AHP.

(336) **Cables**.–Overhead power cables with a minimum clearance of 149 feet cross the river at Nine Mile Point, 103.6 miles AHP; 1 mile above the Huey P. Long Bridge at Bridge City, 107.2 miles AHP; Montz, 129.1 and 129.6 miles AHP; Point Pleasant, 201.5 miles AHP; Lukeville, 224 miles AHP; and Baton Rouge, 232.8 miles AHP.

(337) **Pilotage, Above New Orleans.–**Pilots to destinations above New Orleans are obtainable at New Orleans. See Pilotage, Mississippi River, indexed as such, early this chapter.

(338) **Towage.–**Tugs are available at Gramercy, Burnsides, and Baton Rouge to assist vessels in docking and undocking.

(339) **Facilities on the Mississippi River above New Orleans to Baton Rouge.–**Private and public terminals for handling oil and other products are on both sides of the river; most places have only bankside landings.

(340) At **Avondale**, on the S side of the river 107.7 miles AHP, the ways and fitting out wharves of a large shipyard are equipped to build, convert, or repair vessels up to 900 feet long. The yard has machine and fabricating shops, thermite welding facilities, and can turn out shafts and steel forgings up to 20,000 pounds. The yard has a floating drydock that can accommodate vessels up to 81,000-ton displacement, 220-foot beam, and 35-foot draft. The yard has a marine railway that can handle vessels up to 300 feet. The yard has barges and facilities for gas freeing and tank cleaning.

(341) On the S side of the river 108.5 miles AHP, a wharf is operated by an oil-handling facility, and 108 miles AHP two wharves and storage facilities are operated by a tank terminal company. (See Wharves under Port of New Orleans for descriptions.)

(342) **Harahan** is on the N side of the river at 108.9 miles AHP.

(343) At **Fortier,** on the S side of the river 114.6 miles AHP, a chemical plant and barge wharf are operated by the American Cyanamid Co.

(344) At **Ama,** on the S side of the river 117.7 miles AHP, Farmers Export Co. operates a 5-million-bushel grain elevator with a wharf having berthing space for 1,000-foot vessels, 50 feet reported alongside, and a deck height of 28 feet. Four

vessel-loading spouts have a combined rate of 60,000 bushels per hour, and a marine leg has an unloading rate of 37,500 bushels per hour.

(345) **St. Rose,** on the N side of the river 118.3 miles AHP, has a bulk liquids terminal and is operated by International-Matex Tank Terminals, Ltd. The terminal has 2,540 feet of berthing space with depths of 45 to 55 feet reported alongside.

(346) E of **Luling,** on the S side of the river 120 miles AHP, a large chemical plant and three barge wharves are operated by the Monsanto Co. A conveyor system is at the upper wharf for loading bulk material.

(347) **Destrehan,** on the N side of the river opposite Luling, is the site of two large grain elevators. The Bunge Corp. grain elevator, 120.2 miles AHP, has berthing space for 1,000-foot vessels with 42 feet reported alongside. The facility, with a storage capacity of 8½ million bushels, can load vessels at a rate of 120,000 bushels per hour. The St. Charles grain elevator, 120.6 miles AHP, has berthing space for 1,000-foot vessels with 40 feet reported alongside. The facility has storage for 5 million bushels of grain and can load vessels at a rate of 60,000 bushels per hour.

(348) About 121.8 miles AHP, Interstate Route 310 fixed highway bridge crosses the river between Destrehan and Luling. The clearances are 133 feet under the 1,200-foot main span and 117 feet under the 460-foot auxiliary span.

(349) On the W side about a mile below the tank at **Hahnville,** there is a prominent brick courthouse with clock tower. A shipyard at Hahnville has marine railways that can handle barges up to 340 feet for general repairs.

(350) **Good Hope,** on the E side of the river 125.3 miles AHP, is the site of a large oil storage area. GATX Terminals Corp. operates four wharves for the receipt and shipment of crude oil, petroleum products, and vegetable oil. Each of the wharves has 380 feet of berthing space with dolphins, with the lower three allowing for berthing of 1,000-foot vessels, and depths of 45 to 50 feet reported alongside.

(351) At **Norco,** on the N side of the river 126.1 miles AHP, an oil-transfer wharf is operated by the Shell Oil Co. The wharf has berthing space for 900-foot vessels with 45 to 90 feet reported alongside. Barges can berth at the rear of the upper face. About 1 mile above the oil wharf, the large Shell Oil chemical plant has a barge wharf.

(352) The **Bonnet Carre Floodway** is on the N side of the river 127.9 miles AHP. When the spillway is in operation due to high stages of the river, all vessels and particularly heavily loaded tows passing the site are directed to steer a course sufficiently close to the S bank to avoid possible crosscurrents or draw resulting from water being diverted through the spillway and flowing toward and into Lake Pontchartrain.

(353) **Taft,** on the S side of the river about 127.1 miles AHP, is the site of the Union Carbide Corp. petroleum products and petrochemical wharf. The wharf has berthing space for 700-foot vessels and 50 feet reported alongside.

(354) On the S side of the river 128.7 miles AHP, Beker Industries Corp. receives phosphate rock and ammonia and ships diammonium phosphate and phosphoric acid from a wharf that has berthing space for 700-foot vessels and 50 feet reported alongside. Close W, Hooker Chemicals & Plastics Corp. receives ammonia and ships caustic soda from a wharf that has berthing space for 750-foot vessels and 50 feet reported alongside.

(355) Two overhead power cables about 0.5 mile apart cross the river near Montz, about 129.5 miles AHP. The minimum clearance of the cables is 160 feet.

(356) On the E side of the river 132.4 miles AHP, Bayou Steel Corp. receives scrap metal and ships steel products from a wharf that has berthing space for 600-foot vessels and depths of 40 feet reported alongside. A 16-ton crane is available.

(357) **Laplace,** on the N side of the river 134 miles AHP, is a truck-farming center and prosperous sugar section. About 2 miles above Laplace on the N side at 135.4 miles AHP is the large DuPont refinery and chemical plant. A 321-foot barge wharf at the plant has pipelines for handling caustic soda and fuel oil. The cracking towers and tanks at the refinery and chemical plant are prominent.

(358) **Edgard,** on the S side of the river about 137.9 miles AHP, has a large brick church with twin towers and a tank, and about 0.7 mile W is a large sugarmill with a tall white stack.

(359) **Reserve,** 138.6 miles AHP, has a large sugar refinery with two tall stacks, and a grain elevator. The town is the trading center and shipping point for a very productive sugarcane region. A wharf operated by Godchaux-Henderson Sugar Co., Inc., has 769 feet of berthing space with dolphins and 45 feet reported alongside. Two gantry unloaders can unload sugar from vessels at a rate of 340 tons per hour. A ferry crosses the river from Reserve to Edgard. **Globalplex Terminal**, a 205-acre intermodal terminal 138 miles AHP, has 420 feet of berthing for general cargo, 570 feet for bulk handling, and a swing crane with hopper, an upgraded conveyor system capable of running up to 2,500 tons per hour. The complex has 300,000 square feet of covered storage facilities. Depths alongside the piers are reported to be 45 feet.

(360) A river gauge is at Reserve, mile 138.7 AHP.

(361) A fireboat is moored adjacent to the ferry landing at Reserve. The fireboat is on call 24 hours and can be contacted on VHF-FM channels 16 or 67.

(362) Several wharves are on the N side of the river from 139.2 to 140.2 miles AHP. At the lower end, LaPlace Elevator Co. operates a 4-million-bushel grain elevator with a wharf providing 800 feet of berthing space with dolphins and 50 feet reported alongside. Three vessel-loading spouts operate at a rate of 35,000 bushels per hour, and a marine leg can discharge barges at the rear of the wharf face at 40,000 bushels per hour. Close W, Cargill, Inc., receives and ships grain from a wharf that provides 1,485 feet of berthing space with dolphins and 39 feet reported alongside. The grain elevator has a capacity of 5½ million bushels. Four vessel-loading spouts have a maximum rate of 100,000 bushels per hour, and a bucket elevator can discharge vessels at 120,000 bushels per hour. Cargill, Inc., also receives and ships molasses, vegetable oils, and tallow from a wharf that has 486 feet of berthing space with dolphins and 48 feet reported alongside. At the upper end of this stretch, Marathon Oil Co. operates two wharves for the receipt and shipment of crude oil, asphalt, and petroleum products. Each wharf has berthing space for 1,000-foot vessels and 65 feet reported alongside.

(363) A tank is prominent in **Garyville,** 141.7 miles AHP.

(364) Gramercy-Wallace fixed highway (SR 3213) bridge has a clearance of 139 feet. The bridge crosses the navigable river, 146.1 miles AHP.

(365) **Gramercy,** 146.6 miles AHP, has a large aluminum reduction and chemical plant and a sugar refinery. An ore-handling wharf at the Kaiser Aluminum and Chemical Corp. plant has 875 feet of ship berthing space with 40 feet reported alongside. Bulk

bauxite and fluorspar ore can be unloaded at a rate of 1,000 tons per hour. Colonial Sugars, Inc. ships packaged refined sugar from a wharf that has 498 feet of berthing space with dolphins and 30 feet reported alongside, and raw sugar is received at a wharf that has berthing space for 800-foot vessels and 45 feet reported alongside. The unloading gantries on the ore wharf, a tall stack at the mill, and two tanks are prominent.

(366) Gramercy is a **customs port of entry.**

(367) **Lutcher,** 147.8 miles AHP, has a lumber mill and a factory for processing perique tobacco.

(368) **Vacherie,** on the S side of the river 150.1 miles AHP, has a sugarmill with four stacks and a water tank.

(369) At **Remy,** on the N side of the river about 150.7 miles AHP, Peavey Co. receives and ships grain from a wharf that has berthing space for 900-foot vessels and 45 feet reported alongside. A vessel-loading spout has a rate of 55,000 bushels per hour, and a marine leg can discharge vessels at 60,000 bushels per hour.

(370) **College Point,** 156.1 miles AHP, is the site of Jefferson College. A bulletin board and a river gage are at 157.1 miles AHP on the E side. A large sugarmill with a tall stack is across the river.

(371) Several crude oil wharves are on the W side of the river from 158.1 to 160.7 miles AHP. At the lower end, Dravo Utilities Constructors, Inc., receives crude oil at two wharves each having berthing space for 875-foot vessels and 50 feet reported alongside. Shell Pipe Line Corp. operates four ship wharves for the receipt of crude oil in this stretch. The two largest, close N of Dravo Utilities Constructors wharves, have berthing space for 1,000-foot vessels with depths of 42 feet reported alongside. About 159.9 miles AHP, Matador Pipelines, Inc., and LaJet, Inc. receive and ship crude oil at two wharves. The upper wharf has berthing space for 850-foot vessels and 35 feet reported alongside. At the upper end of this stretch, LaJet, Inc. receives and ships crude oil from a wharf with berthing space for 825-foot vessels and 46 feet reported alongside.

(372) At **Uncle Sam,** on the E side 160.5 miles AHP, a wharf for handling bulk and liquid cargo is operated by the Freeport Chemical Co. The wharf has 625 feet of berthing space with 40 feet reported alongside.

(373) At **Romeville,** on the E side of the river 161.5 miles AHP, Convent Chemical Corp. receives and ships chlorine and ships caustic soda from a wharf that has 795 feet of berthing space with dolphins and 40 feet reported alongside.

(374) At **Central,** on the N side of the river 163.8 miles AHP, Zen-Noh Grain Corp. receives and ships grain from a wharf that has 1,200 feet of berthing space with dolphins and 50 feet reported alongside. Four vessel-loading spouts have a rate of 80,000 to 120,000 bushels per hour, and a marine leg can discharge barges at 100,000 bushels per hour.

(375) At **Salsburg,** on the W side of the river 167 miles AHP, Agrico Chemical Co. receives phosphate rock, liquid sulfur, and ammonia and ships phosphates, urea, and ammonia from a wharf that has berthing space for 800-foot vessels and 40 feet reported alongside. A gantry shiploader can load vessels at 1,000 tons per hour.

(376) **Sunshine Bridge,** the State Route 70 fixed cantilever bridge with a clearance of 133 feet crosses the river just below Union about 167.4 miles AHP. The lower limit of the Port of Baton Rouge is about 0.8 mile above the bridge. Texaco U.S.A. has a refinery and two wharves on the E side of the river 168.2 miles AHP. The upper wharf has berthing space for 900-foot vessels and 40 feet reported alongside.

(377) **Burnside,** on the E side of the river 169.6 miles AHP, has a bulk-handling terminal owned by the Greater Baton Rouge Port Commission and operated by International Terminal Operating Co. of Louisiana, Inc., and a liquid chemical-handling barge wharf operated by E. I. dupont de Nemours and Co. The bulk-handling terminal's main deepwater wharf has 858 feet of ship berthing space with 40 feet reported alongside. A 190-foot barge wharf, just N of the ship wharf, has 2,575 feet of berthing space with dolphins with 12 feet reported alongside. The ship wharf has two unloader gantries, each with a capacity of 1,000 tons per hour, and a vessel-barge loader with a capacity of 1,500 tons per hour. Loading spouts at the barge wharf have a capacity of 1,500 tons per hour. Bulk material handled at the terminal include bauxite, alumina, raw sugar, coal, phosphate, iron ore, manganese and chrome ores, zinc, salt, and coke. Liquid caustic soda is transferred by pipeline from barges to storage tanks at rear of ship wharf. A tug is available for docking and undocking vessels.

(378) A cement dock, owned and operated by River Cement Co., is just N of the barge wharf at Burnside. The cement dock has 370 feet of berthing space with dolphins, a reported depth of 25 feet alongside, and a deck height of 29 feet. Bulk cement is transferred by two 10-inch pneumatic pipelines from the dock to three silos having a total capacity of 10,000 tons. The unloading rate is 250 tons per hour.

(379) **Donaldsonville,** on the S side of the river 175.4 miles AHP, is a town at the former junction of the river and Bayou Lafourche. A river gage is at Donaldsonville. Three chemical wharves are at Donaldsonville. The first, operated by Triad Chemical 173.5 miles AHP, has 650 feet of berthing space with dolphins and reported depths of 40 to 50 feet alongside. The wharf is used for receipt and shipment of liquid ammonia, and shipment of dry bulk urea. Conveyor and pipelines extend from wharf to storage facilities. CF Industries Ship Dock, 173.7 miles AHP, has 720 feet of berthing space with dolphins and a reported depth of 40 feet alongside. The dock is used for shipment of liquid ammonia and dry bulk urea. Conveyor and pipelines extend from wharf to storage facilities. CF Industries Barge Dock, 173.8 miles AHP, has 843 feet of berthing space with dolphins and a depth of 20 feet alongside. The dock is used for receipt and shipment of ammonia and urea ammonia hydrate, and receipt of fuel oil for plant consumption. Pipelines extend from wharf to storage facilities. A rice mill is in the town. A church with twin spires and a tank are prominent.

(380) **Geismar,** on the N side of the river 184.6 miles AHP, has several chemical plants with wharves for handling liquid chemicals, two petroleum wharves used to receive petroleum products and ship petrochemicals, and one floating offshore wharf used to receive shell and limestone and to ship fertilizer. The floating wharf, operated by Hall-Buck Marine Services Co. 183.2 miles AHP, has 250 feet of berthing space with a reported depth of 25 feet alongside. The floating wharf has a revolving crane with clamshell bucket and conveyor belt equipment. The petroleum wharf, operated by the Shell Chemical Co. 183.3 miles AHP, has 940 feet of berthing space at the face with dolphins with 38 feet reported alongside and 450 feet of berthing space at rear of face with 34 feet reported alongside. Pipelines at the wharf lead to storage tanks. The Wyandotte Chemical Corp. Wharf, 183.9 miles AHP, has 615 feet of berthing space with dolphins with 50

feet reported alongside. The Borden Chemical Wharf, 185 miles AHP, has 350 feet of berthing space with dolphins and a reported depth of 20 feet alongside. Pipelines lead from the wharf to storage tanks in the rear. Liquid anhydrous ammonia and methanol are shipped. The petroleum barge wharf, operated by the Mobil Oil Co. 186 miles AHP, has a 225-foot face with 80 feet reported alongside. The wharf has facilities for loading barges with gasoline and liquid propane gas. The Allied Chemical Corp. Wharf, 187 miles AHP, has 1,175 feet of ship berthing space with dolphins at the face with 50 feet reported alongside and 700 feet of barge berthing space at rear of face with 10 to 15 feet reported alongside. Pipelines and bulk material handling equipment at the wharf are used for handling receipts of phosphate, ammonia, sulfuric acid, and liquid sulfur, and for loading shipments of liquid fertilizer, ammonia, sulfuric acid, and petrochemicals. The industrial chemical handling wharf, operated by Cosden Oil and Chemical Co. 188 miles AHP, has 802 feet of berthing space with dolphins with 45 feet reported alongside. Pipelines lead from the wharf to storage tanks at plant in rear.

(381) The **White Castle** ferry crosses the river to **Carville** about 191.2 miles AHP.

(382) **St. Gabriel,** on the E side 200.7 miles AHP, has a chemical plant with a large wharf used for receipt of bulk salt and shipment of chlorine and caustic soda and a small floating petroleum wharf used for receipt of crude oil by barge. The chemical wharf, operated by Stauffer Chemical Co. 199.9 miles AHP, has 1,205 feet of berthing space with dolphins with 35 feet reported alongside.

(383) A **regulated navigation area** is from Mile 200 to 201.5 AHP. (See **165.1 through 165.13 and 165.201**, chapter 2, for regulations.)

(384) The Gulf States Utilities Co. is at **Sunshine,** on the N side of the river 201.3 miles AHP. The plant has a wharf with 1,225 feet of berthing space with dolphins and a reported depth of 39 feet alongside. The wharf is used for receipt of fuel oil for plant consumption. Pipelines lead from wharf to storage tanks of about 2½-million-barrel total capacity. A chemical company wharf on the N side of the river 203.4 miles AHP, owned and operated by PetroUnited Terminals, Inc., has 960 feet of berthing space with dolphins at the face and a reported depth of 42 feet alongside. The wharf is used for receipt and shipment of chemicals, petroleum products, and petrochemicals; occasional receipt of crude oil. Pipelines lead from wharf to storage tanks in the rear.

(385) **Plaquemine,** on the W side of the river about 208.8 miles AHP, is at the junction of the Mississippi and Bayou Plaquemine. A vehicular ferry crosses the river just below Plaquemine. The town has a foundry, and several sugar mills are in the vicinity. A petrochemical wharf is operated by Hercofina on the W side 204.9 miles AHP. The wharf has 700 feet of berthing space with dolphins with 60 feet reported alongside. Georgia Pacific Corporation has two wharves on the W side 205.7 and 205.8 miles AHP. The downstream wharf has 840 feet of berthing space with dolphins and a depth of 40 feet alongside. The wharf is used for receipt and shipment of petrochemicals and shipment of caustic soda. Pipelines extend from the wharf to storage tanks. The upstream wharf has 400 feet of berthing space at the face. A reported depth of 25 feet is alongside. The wharf is used for receipt of vinyl chloride. A pipeline extends from the wharf to storage tanks. Dow Chemical Co. has a large chemical plant and wharf on the W side about 209.4 miles AHP. The wharf has 730 feet of berthing space with dolphins with 35 to 40 feet reported alongside. Pipelines at the wharf lead to bulk liquid storage tanks at the plant. A second wharf, owned and operated by Dow Chemical Co., is on the W side about 189.7 miles AHP. The wharf has 900 feet of berthing space with dolphins and a reported depth of 40 feet alongside. It is used for receipt and shipment of petroleum products and receipt of naphtha and fuel oil for plant consumption.

(386) An overhead power cable crossing the river at Lukeville, 224 miles AHP, has a clearance of 150 feet.

(387) **Chart 11370.–Baton Rouge,** the capital of Louisiana on the E side of the river 229.5 miles AHP, is a river port of considerable importance. The **Port of Baton Rouge** limits extend from Union, 168.2 miles AHP, to Point Menoir, 255 miles AHP. The Greater Baton Rouge Port Commission owns and controls the public port facilities which include the Bulk Marine Terminal at Burnside, the grain elevator and general cargo terminal on the W side of the river at Port Allen, and the Port of Baton Rouge Terminal at the head of **Baton Rouge Harbor** on the E side of the river about 6.5 miles above Baton Rouge.

(388) The principal industries in the city are petrochemical and petroleum, synthetic rubber, chemical, lumber and wood products, stone, gravel, clay, and cement, steel fabricating, aluminum, food and staples, machinery, and transportation equipment. The principal shipments from the port include wheat, corn, sorghum, soybeans, animal feeds, petroleum products, scrap iron, aluminum, lumber, steel products, rubber, chemicals, and sulphuric acids. The principal receipts are sugar, molasses, coffee, vegetable oil, iron, manganese, chrome and zinc ores, bauxite, phosphate rock, caustic soda, sulfur, sodium hydroxide, alcohol, sulfuric acid, and newsprint.

(389) At **Port Allen,** the N end of the Intracoastal Waterway (Port Allen to Morgan City Alternate Route) connects with the Mississippi River at Port Allen Lock about 228.1 miles AHP. (See chapter 12.) Baton Rouge is the site of Louisiana State University and is the cultural center of the State.

(390) **Prominent features.–**The most conspicuous object in the city is the State Capitol Building, a 520-foot white structure that dominates the area. Several tall buildings and the State University and stadium are prominent. The Interstate Route 10 fixed highway bridge, with a clearance of 135 feet at the center and 125 feet elsewhere, crosses the river between Baton Rouge and Port Allen about 229 miles AHP.

(391) **Channels.–**Federal project depth for the river is 40 feet to 232.4 miles AHP, about 1.5 miles below the Baton Rouge Railroad and Highway Bridge. This bridge is the limit of deepwater navigation on the river. Federal project depth for the Baton Rouge Harbor is 12 feet for 2.9 miles. The channels are maintained and well marked.

(392) **Anchorages.**–Anchorages are at Baton Rouge on the W side of the river and in midriver. Temporary anchorages may be prescribed by the Commander, Eighth Coast Guard District and published in the Local Notice to Mariners. (See **110.1 and 110.195**, chapter 2, for anchorage limits and regulations.)

(393) **Dangers.**–Mariners departing Greater Baton Rouge Port Commission Dock No. 2, are advised to use extreme caution when turning vessels downstream. Strong currents associated with high water have caused vessels departing this facility to be set down upon the fender system of the Interstate Route 10 fixed highway bridge causing extensive damages. The New Orleans-Baton Rouge Steamship Pilots report that currents in

excess of 7 knots have been observed. Mariners should consider moving vessels well above or below the bridge before turning downstream.

(394) **Bridges.**–Besides the Interstate Route 10 fixed highway bridge crossing the river between Baton Rouge and Port Allen, the combination Airline Highway (U.S. Route 190) and Kansas City Southern Railroad bridge crosses the river 233.8 miles AHP, about 4.6 miles above Baton Rouge. The bridge, known as the Baton Rouge Railroad and Highway Bridge, has a 748-foot fixed span over the channel with a clearance of 65 feet. Strong river currents and a bend upstream render the bridge susceptible to collision by overburdened downbound tows. Vessel owners and operators should ensure that sufficient horsepower is available for the size of the tow and the river conditions. Special precaution should be taken during high water stages. Mariners are urged to use extreme care when passing the bridge, particularly downbound tows.

(395) **Cables.**–An overhead power cable with a clearance of 150 feet crosses the river about 232.6 miles AHP.

(396) **Tides and currents.**–Tidal effects are felt in the river to some extent to 265 miles AHP, about 35.7 miles above Baton Rouge. The highest stage of the river ever recorded was 47 feet in 1927. A bulletin board showing the river stage and a river gage are on the W side of the river at the entrance to Port Allen Lock.

(397) **Weather.**–Located on the E side of the Mississippi River, the area is near the first evident relief N of the deltaic coastal plain. Marsh and swamp terrain stretch S to the Gulf of Mexico. The general climate is humid subtropical, but the city is subject to significant polar influences during winter, as masses of cold air periodically move S across the plains and the Mississippi Valley. The prevailing winds are from a S direction during much of the year. These breezes help to temper the extremes of summer heat and shorten winter cold spells. They also provide a source of abundant moisture and rainfall. Winds are usually light; 80 percent of the hourly observations during the year are less than 10 knots. Rainfall is plentiful year round, with a slight minimum in September and October. Most is of the showery type, except occasionally during winter when steady rain is produced by a stalled cold front. The average annual rainfall at Baton Rouge is 58.5 inches. July is the wettest month averaging 6.6 inches while October is the driest month averaging 3.1 inches. Twenty-eight percent of the annual rainfall occurs during the summer months of June, July, and August and the most of this amount falls during convective activity. Baton Rouge averages 73 thunderstorm-days, 52% of these occur during this same three-month period.

(398) The winter months are normally mild, with cold spells of short duration. The typical pattern is weather turning cold with rain one day, reaching the lowest temperatures after the sky clears on the second day, and warming on the third day. Temperatures fall below freezing on about 21 days annually. This ranges from fewer than 10 days to more than 30 days in individual years. The average annual temperature at Baton Rouge is 68ºF with an average maximum of 78ºF and an average minimum of 57ºF. The warmest temperature on record is 103ºF recorded in June 1954 and the coolest temperature on record is 8ºF recorded in December 1989. Each month, October through April, has recorded extreme minimum temperatures at or below freezing while June, July, and August each have had temperatures in excess of 100ºF.

(399) Summers are warm but maximums rarely exceed 100°F because of the high humidity, cloudiness, and scattered showers and thunderstorms, which are primary features of the weather during these months. Showers and thunderstorms are present in the area on about one-half of the days during June, July, and August. Severe local storms, including hailstorms, tornadoes, and local windstorms have occurred in all seasons, but are most frequent in spring. Large hail of a damaging nature very rarely occurs, and tornadoes in this section of Louisiana are unusual. Since 1900, the centers of four tropical cyclones have passed within 10 miles of Baton Rouge and ten have passed within 25 miles of the city. The area can expect 75-knot winds about once every 50 years, on average.

(400) **Pilotage, Baton Rouge.**–Pilotage is compulsory on the river between Baton Rouge and the Gulf of Mexico. (See Pilotage, Mississippi River (indexed as such) at the beginning of this chapter.)

(401) **Towage.**–Tugs up to 4,000 hp are available at the Port of Baton Rouge to assist during docking.

(402) **Quarantine, customs, immigration, and agricultural quarantine.**–(See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(403) Baton Rouge is a **customs port of entry.**

(404) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(405) A general hospital and several private hospitals are in the city.

(406) **Harbor regulations.**–Federal regulations for the navigation of the Mississippi River are given in **161.402, 162.80, and 207.200**, chapter 2. The Greater Baton Rouge Port Commission, consisting of members appointed by the governor of the State, establishes rules and regulations for the Port of Baton Rouge. The Executive Director of the commission is the Port Director who is in charge of the management and operation of the port facilities under control of the commission, and the Superintendent of Operations assigns berths at the various public terminals.

(407) **Wharves.**–The Port of Baton Rouge has over 70 piers and wharves located on both sides of the Mississippi River and in Baton Rouge Harbor. More than half of these facilities are for barges with depths less than 15 feet alongside. Only the deep-draft facilities and the larger barge facilities are described. For a complete description of the port facilities refer to Port Series No. 21, published and sold by the U.S. Army Corps of Engineers. (See appendix for address.) The alongside depths are reported; for information of the latest depths contact port authorities or the private operators. All the facilities described have direct highway and railroad connections. Water and electrical shore power connections are available at most piers and wharves.

(408) General cargo at the port is usually handled by ship's tackle; special handling equipment, if available, is mentioned in the description of the particular facility. Cranes up to 150 tons, warehouses, and open storage facilities are adjacent to the waterfront.

(409) **Facilities on the E side of the river:**

(410) Exxon Co., U.S.A. Wharf: about 1.7 miles below Baton Rouge Railroad and State Route 190 highway bridge; 2,760-foot face, 40 to 50 feet alongside; 1,250 feet of barge berthing space at rear of face, 12 feet alongside; deck height, 50 feet; a ballast line, a steam line, compressed air lines, high-pressure river water lines, and drain lines are at the wharf; receipt and shipment of petroleum products; shipment of petrochemicals; bunkering tankers

berthed at wharf; loading barges for fueling tugs in midstream; operated by Exxon Co., U.S.A.

(411) Formosa Plastics Corp. Wharf: about 0.3 mile below Baton Rouge Railroad and State Route 190 highway bridge; offshore wharf, 770 feet of berthing space with dolphins; 40 feet alongside; deck height, 50 feet; storage tanks with 50,000-ton capacity; receipt of caustic liquor; shipment of caustic and ethylene dichloride liquors; owned and operated by Formosa Plastics Corp., La.

(412) Kaiser Aluminum and Chemical Corp. Lower Wharf: about 400 feet below Baton Rouge Railroad and State Route 190 highway bridge; 829 feet of berthing space with dolphins; 40 feet alongside; deck height, 47 feet; two electric, traveling unloading towers on wharf serve a 54-inch, covered, electric, belt-conveyor system having an unloading rate of 800 tons per hour; one electric, traveling loading tower on wharf served by a 42-inch, covered, electric, belt-conveyor system with a loading rate of 1,000 tons per hour; one 15-ton electric crane on each unloading tower; one 6-inch, steam-traced pipeline extends from wharf to two steel storage tanks; receipt of bauxite by vessel, and shell, hydrogen sulfide, and liquid caustic soda by barge; shipment of alumina and plant equipment by vessel and barge; owned and operated by Kaiser Aluminum and Chemical Corp.

(413) **Facilities in Baton Rouge Harbor:**

(414) United States Steel Chemical Wharf: E side of Baton Rouge Harbor about 1.5 miles above the entrance; 233 feet of berthing space with dolphins; 17 feet alongside; deck height, 6 feet; receipt of petrochemicals and petroleum products by barge; owned and operated by United States Steel Chemical.

(415) Greater Baton Rouge Port Commission, Baton Rouge Harbor Barge Terminal Pier: head of Baton Rouge Harbor, about 2.4 miles above entrance; 90-foot face, 399-foot E side, 430-foot W side; 12 feet alongside; deck height, 47 feet at face and on E side, 50 feet on W side; mobile cranes up to 90 tons; about 10 acres of open storage area available on pier approach and in rear; receipt and shipment of general cargo by barge; owned and operated by Greater Baton Rouge Port Commission and Agway Systems, Inc.

(416) **Facilities on W side of river at Port Allen:**

(417) Placid Refining Co. Tanker Wharf: about 2.3 miles above Interstate Route 10 fixed highway bridge; 900 feet of berthing space with dolphins; 50 feet alongside; receipt and shipment of petroleum products and petrochemicals, receipt of crude oil; pipelines lead from wharf to storage facility with capacity of over 2 million barrels.

(418) Greater Baton Rouge Port Commission Fuel Dock: about 0.2 mile above Interstate Route 10 fixed highway bridge; floating offshore wharf; 265 feet of berthing space with dolphins; 50 feet alongside; receipt and shipment of petroleum products; pipelines lead from wharf to storage facilities with capacity of over 1¼ million barrels. Owned by Greater Baton Rouge Port Commission, and operated by Petroleum Fuel and Terminals Co.

(419) Greater Baton Rouge Port Commission, Dock No. 2: about 400 feet above Interstate Route 10 highway bridge; marginal wharf, 931-foot face; 50 feet alongside; deck height, 50 feet; 84,000 square feet of covered storage; receipt and shipment of general cargo; owned and operated by Greater Baton Rouge Port Commission.

(420) Greater Baton Rouge Port Commission, Dock No. 1: adjacent to lower side of Interstate Route 10 highway bridge; marginal wharf, 1,358-foot face; 50 feet alongside; 400 feet of barge berthing space at rear of face on lower end; deck height, 50 feet; 110,000 square feet of covered storage; commodity warehouse in rear of wharf with 42,000 square feet of storage space; 30-ton portable gantry crane; portable bagging machine in transit shed; pipelines extend from wharf to molasses storage tanks having a capacity of 11-million gallons; receipt and shipment of general cargo; shipment of scrap metal; receipt and shipment of molasses; owned by Greater Baton Rouge Port Commission and operated by Greater Baton Rouge Port Commission and Manard Molasses Corp.

(421) Greater Baton Rouge Port Commission, Grain Wharf: about 0.3 mile below Interstate Route 10 highway bridge; 510 feet of berthing space with dolphins at face and same at rear of face; 40 feet alongside; deck height, 115 feet; five vessel-loading spouts along face having a combined loading rate of 60,000 bushels per hour; two marine legs at rear of face having a combined unloading rate of 30,000 bushels per hour; grain elevators having a storage capacity of over 7½ million bushels; receipt of grain by barge; shipment of grain by vessel; owned by Greater Baton Rouge Port Commission, and operated by Cargill, Inc.

(422) **Supplies.–**Gasoline, diesel fuel, provisions, and marine supplies are available. Vessels can receive bunker fuel from tank barges while alongside the wharves or at the Exxon Co. U.S.A. Wharf, about 1.7 miles below the Baton Rouge Railroad and State Route 190 highway bridge. Water is piped to many of the wharves.

(423) **Repairs.–**Baton Rouge has no facilities for making major repairs or for drydocking large, deep-draft vessels; the nearest facilities are at New Orleans. Several above-the-waterline repair wharves are equipped to make repairs to tugs, fishing boats, barges, and other small vessels. Above-the-waterline hull and engine repairs can be made. Cargo hold cleaning, gas freeing, and tank cleaning facilities are available in the port.

(424) A shipyard on the Port Allen Canal, about 7.2 miles above its junction with the Mississippi River, has two floating drydocks; the largest drydock can handle vessels up to 2,500 tons.

(425) **Small-craft facilities** are limited to temporary berthage at some of the barge docks and floating docks along the river bank.

(426) **Communications.–**The port is served by the numerous steamship lines to all domestic and overseas ports of the Caribbean, West Indies, Central and South America, Europe, Africa, and the Far East. Three main line railroads offer direct service to the port and a fourth by reciprocal switching. The Illinois Central, the Kansas City Southern, Missouri Pacific, and the Texas and Pacific Railroads serve the area. Numerous truck lines serve the port. Local and interstate bus service is available. Several airlines offer service at the Ryan Airport about 5 miles N of the city.

(427) **Mississippi River to Illinois River at Grafton**.–In 1978, depths of 9 feet were being maintained between Baton Rouge and the junction with the Illinois River at Grafton, Ill., about 1,200 miles AHP. Greater depths are available during high river stages. Limiting clearances between Baton Rouge and Grafton are: fixed bridges, 50 feet above extreme (record) high water; swing bridge at Alton, Ill., 36 feet above normal pool level closed, 96 feet above normal pool level open; overhead cables, 62 feet above extreme (record) high water; locks, 600 feet long, 110 feet wide.

(428) The Illinois Waterway from Grafton to Chicago is described in United States Coast Pilot 6, Great Lakes.

(429) Navigation maps of the Mississippi River and its tributaries are published by the Corps of Engineers. (See appendix.)

(430) **Chart 11354.–Old River,** about 73.7 miles above Baton Rouge and 303.1 miles AHP, is a 6-mile-long stream that formerly connected the Mississippi River with the Red and Atchafalaya Rivers. In 1963, a dam was constructed about a mile from its E entrance to prevent the Mississippi from flowing uncontrolled into the Atchafalaya Basin. Outflow channels with control structures are on the W side of the Mississippi River about 5 and 10 miles upstream of the entrance to Old River. These structures regulate and divert the flow of water from the Mississippi River into the Red River.

(431) **Caution**.–The outflow channels are not navigation channels. A flashing amber light on the S point of each of the outflow channels indicates when the control structures are in operation. Very dangerous currents exist at the sites, especially during the high water season. Vessels transiting this reach of the Mississippi are cautioned to navigate within the buoyed navigation channel to avoid possible crosscurrents and being drawn down into the control structures.

(432) The upper Old River control structure, at mile 314.5 AHP, is within a **safety zone.** (See **165.1 through 165.7, 165.20 through 165.25, and 165.802**, chapter 2, for limits and regulations.)

(433) **Old River Navigation Canal and Lock** was built to bypass the dam and permit navigation between the three rivers. The Federal project provides for a dredged channel 12 feet deep and about 2.3 miles long from the Mississippi to Old River about 1.6 miles W of the dam, thence 12 feet to the junction at Barbre Landing with the Red and Atchafalaya Rivers at A.R. Mile 0.0. The lock is 1,200 feet long (1,190 feet usable), 75 feet wide, and 11 feet over the sill. Red and green combination traffic lights and daybeacons are at each end of the lock. The lockmaster monitors VHF-FM channels 12 and 14. State Route 15 highway vertical lift bridge over the lock has a clearance of zero feet down and 53 feet up.

(434) **Atchafalaya River** flows S into the Gulf of Mexico from its confluence with Red and Old Rivers. The 116.8-mile section, the confluence to Morgan City, has a Federal project depth of 12 feet. In 1982, the deepest draft carried on the river was 12 feet, and with average drafts between 9 and 11 feet. There is considerable commerce on the river in shell, logs, sand and gravel, petroleum products, liquid sulfur, alcohol, industrial chemicals, fertilizer, sugar, and molasses.

(435) The minimum clearance of the overhead power cables and pipelines is 51 feet. The minimum clearance of the drawbridges crossing the river is 3 feet. The minimum clearance of the fixed highway bridges is 40 feet.

(436) During periods of high water, strong currents exist at the river junction with the Intracoastal Waterway.